



**COMPILATION OF MEMORANDA
OF UNDERSTANDING
AND
INTERAGENCY AGREEMENTS**

**PROCESSED THROUGH THE OFFICE OF THE
EXECUTIVE SECRETARIAT**

YEAR 2000 TO NOVEMBER 14, 2008

*Compiled by the Office of the Executive Secretariat
November 26, 2008*

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY (CEQ)
THE UNITED STATES POSTAL SERVICE (USPS),
THE DEPARTMENT OF DEFENSE (DoD),
THE DEPARTMENT OF ENERGY (DOE),
THE DEPARTMENT OF INTERIOR (DOI),
AND
THE ENVIRONMENTAL PROTECTION AGENCY (EPA)

TITLE: Improving Environmental Management of Electronic Assets

PURPOSE:

The CEQ, USPS, DoD, DOE, DOI, and EPA (the Parties) enter into this MOU to develop a common strategy for using environmentally preferable and energy efficient technologies and practices to improve the quality, performance, and environmental management of electronic assets throughout their life cycle. Electronic assets covered by this MOU include, but are not limited to, equipment used in communications, information systems, military, and scientific applications. The Parties define the life cycle of electronic equipment broadly to include acquisition, design, manufacture, assembly, distribution, use, reuse, demanufacture,¹ and recycling. The Parties intend to capitalize on other applicable efforts, including work already accomplished by the Federal Electronic Asset Management Task Force.

BACKGROUND:

Use of electronic equipment has skyrocketed in the past decade, and this trend promises to continue as new equipment is introduced daily. While our growing national dependence on electronics is vastly improving efficiency and communication, it is also spawning a new and potentially troublesome waste stream. Electronic, and especially computer, technology tends to have a short life span; on average, computer technology evolves every 6-18 months, with units being replaced every 3-5 years. A recent report by the National Safety Council (NSC) estimates

¹ Dismantling - which is manually breaking down equipment into its separate components, to either recover components for resale or reuse in other equipment or to sort components before recovering raw materials.

that over 20 million computers became obsolete in 1998 alone. Of these, less than 11% were recycled. The rest were landfilled or remain in storage awaiting final disposition. The NSC predicts that by 2007 there will be 500 million obsolete computers in the U.S.

Electronic equipment (especially equipment containing cathode ray tubes, printed wiring boards, mercury switches, capacitors, and batteries) often contains persistent, bioaccumulative, and toxic constituents such as mercury, lead, cadmium, and chromium. There is growing concern, especially at the state and local government level, that the glut of obsolete electronic equipment is creating a waste stream, which if not properly managed, will be hazardous to the environment. In response, some states have enacted laws banning the disposal of certain kinds of electronic equipment in municipal landfills or incinerators.² Sound economic and environmental policy would encourage increased recovery of the valuable materials contained in this equipment and recycling of the remainder.

More companies are applying approaches and technologies which improve environmental stewardship while ensuring or even enhancing product quality or performance. Printed wiring board manufacturers, for instance, have eliminated formaldehyde and other toxic chemicals, cut water and energy requirements -- and consequently, reduced operating costs and liability -- in their component production. Manufacturers of cathode ray tubes (CRTs) and flat panel liquid crystal displays (LCDs) are working to improve product performance and reduce overall environmental impacts.

The US government is the nation's, if not the world's, largest single consumer of electronic equipment. Federal agencies spent approximately \$5 billion on computers alone in FY 1996, and have undoubtedly spent much more in recent years. By law, executive order, and regulation, the Federal government is obligated to consider the environmental impacts of its purchasing decisions.³ In particular, Federal agencies must favor the acquisition of environmentally preferable and energy-efficient equipment and services, and reduce or eliminate the generation of hazardous waste. In addition, pursuant to Executive Order,⁴ Federal agencies must offer to donate excess computers and related equipment to needy schools.

² For example, Massachusetts recently banned disposal of cathode ray tubes in municipal landfills.

³ Resource Conservation and Recovery Act (P.L. 94-580, as amended), Energy Policy Act of 1992 (P.L. 102-486, as amended), Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510, as amended), Emergency Planning and Community Right-To-Know Act of 1986 (Title III of the Superfund Amendments and Reauthorization Act, P.L. 99-499, as amended), Pollution Prevention Act of 1990 (P.L. 101-503, as amended), Executive Order 13101, "Greening the Government Through Waste Prevention, Recycling, and Pollution Reduction," Executive Order 13123, "Greening the Government Through Efficient Energy Management," Executive Order 13148, "Greening the Government Through Leadership in Environmental Management," and Federal Acquisition Regulation.

⁴ Executive Order 12999, "Educational Technology: Ensuring Opportunity for All Children in the Next Century."

The Federal government's size and buying power uniquely position Federal agencies to drive the design of environmentally preferable electronic equipment and the development of a cost-effective national reuse and recycling infrastructure for surplus electronic equipment. "Greener" Federal government electronics purchasing and management practices will help reduce toxics and solid waste, and set a good example for the private sector. It will save the Federal government millions of dollars annually through reduced and avoided waste management costs and recovery of investment in valuable assets.

Extremely important work has been accomplished in industry, academia, Federal and State government agencies and the Parties to this MOU in the development, reuse, demanufacturing, and recycling of electronic equipment. The scope of this problem, however, now dictates a more collaborative effort focused on common objectives

GOAL AND OBJECTIVES:

The Parties to this MOU collaboratively seek to reduce the environmental impact of their electronic equipment use and disposal through continuous improvements to the acquisition, design, specifications, material choices, manufacturing processes, assembly technologies, distribution, and use of new electronic equipment, and the reuse, demanufacturing, and recycling of surplus electronic equipment. In support of this goal, the Parties agree to work together on the following six objectives:

1. Increase demand for "Greener" electronic equipment while maintaining or improving equipment quality and performance. (This could include procuring equipment with reduced toxics content, greater energy efficiency, and increased reused and recycled content, as well as equipment that is designed to be more readily disassembled and recovered at end of life);
2. Promote the implementation of best life cycle management practices for electronic equipment and share identified best practices with those within and outside of the Federal government;
3. Reduce the economic and environmental life cycle costs of Government electronic equipment;
4. Encourage growth of the infrastructure for the reuse, demanufacturing, recycling of obsolete equipment;
5. Strive for "zero waste" in the disposition of electronic equipment and associated packaging material; and,
6. Coordinate and cooperate on other public and private sector efforts aimed at achieving similar objectives.

BENEFITS:

This MOU provides the Federal government an excellent opportunity to demonstrate its commitment to environmental leadership. The parties anticipate substantial benefits from better environmental management of electronic equipment throughout the life cycle, including:

- Reduced use and disposal of hazardous materials and reduced solid waste from the manufacture and disposition of electronic equipment;
- Electronic equipment that is easier and less costly to demanufacture and recycle;
- Increased recovery and use of reusable components and recyclable materials from electronic equipment;
- Reduced use of virgin materials in the manufacture of new electronic equipment;
- Greater energy efficiency in the manufacture and use of electronic equipment;
- Reduced environmental liability from the handling and disposal of electronic equipment; and,
- Reduced government electronic equipment life cycle costs.

AGREEMENTS/RESPONSIBILITIES:

This MOU's focus is continuous interaction of the Parties with a free flow of information on joint and individual activities aimed at improving the life cycle management of electronic equipment. Providing information proactively to assure the Parties are fully aware of each other's activities is essential. To achieve MOU goal and objectives, the Parties agree to coordinate plans and programs concerning the management of electronic equipment through collaborative activities, which may include:

- Providing a forum for understanding pertinent technological and scientific issues, and for understanding existing and proposed policies, regulations, and legislation, and for suggesting improvements thereto;
- Developing principles for the life cycle management of electronic equipment;
- Identifying and disseminating information;
- Using best life cycle management practices;
- Promoting processes and procedures which enhance both the environmental preferability and the general quality and performance of electronic equipment;
- Identifying and promoting "green" equipment and processes;
- Cataloging materials contained in equipment;
- Developing contract language promoting the acquisition of environmentally preferable equipment;
- Improving standards and specifications;
- Identifying hazardous materials substitutes;
- Increasing the reused/recycled content of equipment;
- Improving demanufacturing processes;

- Identifying surplus equipment reuse and recycling applications;
- Developing language for demanufacturing contracts;
- Participating in industry meetings and programs to promote MOU goal and objectives;
- Coordinating with applicable non-governmental projects and initiatives;
- Organizing seminars and meetings;
- Participating in demonstration and pilot projects; and,
- Documenting the success of individual projects and initiatives and the overall success of the partnership.

ACTIONS:

The Parties agree they will share responsibility for fulfilling the goal and objectives of this MOU. In addition, the Parties agree to:

- Develop within 90 days of the signing of this MOU, an Action Plan detailing the steps the parties will take to achieve MOU goal and objectives;
- Designate a staff-level point of contact (POC) to participate in a working group who will coordinate MOU implementation efforts and provide a forum for information exchange concerning existing and planned initiatives to improve management of electronic equipment;
- Designate a Senior Executive(s) to an Executive Council to provide overall guidance and coordination of the Parties efforts;
- Use, as appropriate, existing or planned initiatives to achieve MOU goals; and,
- Seek public and public/private partnership opportunities to support MOU goals.

GENERAL:

The Parties mutually recognize and acknowledge MOU implementation will be subject to resource availability. This sets forth mutual goals and approaches. It is not intended to create any rights, benefits, or trust responsibilities, substantive or procedural, enforceable at law by a party against the U.S., its agencies, its officers, or any other person. Details regarding commitment of agency resources, if any, will be developed in the separate Action Plan. News releases, media events, conferences, or other public events held to publicize achievements of this effort will be conducted with the prior consent of the Parties.

Collaboration under this MOU will be in accordance with applicable statutes and regulations governing the respective Parties. Nothing in this MOU is intended to affect existing obligations or other agreements or arrangements of the Parties. Release of information developed under this MOU will be by prior agreement of the Parties. To ensure all Parties are aware of and committed to maintain the collaboration, advance notification of significant contracts or solicitations relating to the objectives of this MOU should be made to all Parties to the extent allowed by applicable statute and regulation.

Parties envision that other Federal agencies may wish to join this MOU. The Parties encourage all Federal agencies that support the MOU goal and objectives to do so.

EFFECTIVE PERIOD:

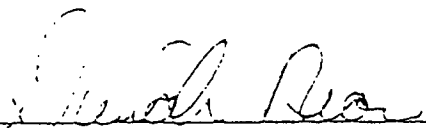
This MOU will become effective upon the latest date of signature. It shall remain in effect for five (5) years unless otherwise modified or terminated. Any party may withdraw upon 30 days written notification to the others. This MOU may be modified through mutual written agreement among the Parties.

ADMINISTRATION:

The POCs of the Parties will meet monthly or as appropriate as a working group to coordinate efforts to implement this MOU and to exchange information concerning existing and planned initiatives to improve electronic equipment management. For the first year, the DoD POC will serve as chair of the working group. Thereafter, the chair of the working group may change as decided by the Executive Council. In addition, a representative from the Executive Office of the President will be invited to participate in the working group to assist in planning and to ensure other Federal agencies are provided information and updates and to assess the effectiveness of this MOU and determine whether modifications are necessary or desirable.

The Executive Council will meet periodically (at least semi-annually) to provide overall guidance to and coordination of the Parties.

SIGNED BY:



Council on Environmental Quality
Dinan Bear
Acting Chair

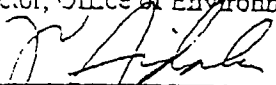
5-3-01

Date

Department of Energy
Robert T. Barney
Acting Director, Office of Worker and Community
Transition

Date

Director, Office of Environmental Policy and Compliance


Environmental Protection Agency


Jim V. Aidala

Associate Assistant Administrator

Office of Prevention, Pesticides, and Toxic Substances

12/1/00

Date


Environmental Protection Agency

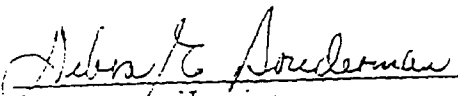
Romulo L. Diaz, Jr.

Assistant Administrator

Office of Administration and Resource Management

11/29/00

Date

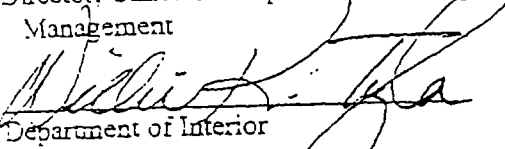

Department of Interior

Debra E. Sonderman

Director, Office of Acquisition and Property
Management

11/16/2000

Date



Department of Interior

Willie R. Taylor

Director, Office of Environmental Policy and Compliance

1/4/01

Date

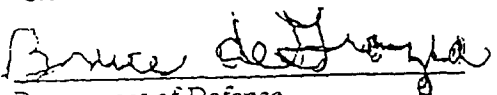

Department of Interior

Daryl W. White

Chief Information Officer

1/24/01

Date


Department of Defense

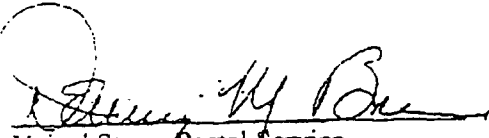
Bruce C. deGrazia

Assistant Deputy Under Secretary of Defense

(Environmental Quality)

1/19/01

Date


United States Postal Service

Mr. Dennis Baca

2-22-01

Date

**Department of Energy**

Washington, DC 20585

May 16, 2001

MEMORANDUM FOR THE SECRETARY

FROM: *Robert Baney*
Robert Baney, Acting Director Office of Worker and
Community Transition

SUBJECT: Memorandum of Understanding - Improving Environmental
Management of Electronic Assets

My staff participated in the interagency effort by the White House Task Force on Greening the Government Through Waste Prevention and Recycling, chaired by the Federal Environmental Executive. We represented the Department as a result of our Asset Management Program, which established the National Electronics Recycling Center (NERC) in Oak Ridge, a part of the Pilot Project Program that the Office of Worker and Community Transition instituted with Congressional approval. The NERC is now fully funded with private sector support.

Working with the Department's of Interior and Defense, the Environmental Protection Agency and the United States Postal Service, we drafted a Memorandum of Understanding (MOU) to develop a common strategy for using environmentally preferable and energy efficient technologies and practices to improve the quality, performance and environmental management of electronic assets (Tab A). Implementation would be subject to resource availability. Nothing in the MOU would affect existing obligations or other agreements or arrangements of the Parties. The MOU would be effective on the date of signature of the last Party and any Party may withdraw within 90 days after notification to the other Parties. Modifications of the MOU would be through written mutual agreement of the Parties.

A National Electronics Stewardship Workshop was convened this past February to provide an overview of federal government activities involving electronics assets. The Department presented its program on the National Electronics Recycling Center, which has recently received the 2001 White House Closing the Circle Award (Tab B). The MOU was distributed to all participants, which included representatives from the Electronic Industries Alliance, The International Association of Electronics Recyclers, American Plastic Council, International Business Machines, Panasonic and Dupont and was well received and supported.

The MOU would require the designation of a staff level point of contact and Senior Executive to an Executive Council to provide guidance and coordination among the Parties. It is the intention of the Parties to use, where appropriate, existing or planned initiatives to achieve the goals and objectives of the MOU and, finally, to seek public/private partnership opportunities. The Council on Environmental Quality has recently become a Party.

We believe that becoming a Party to the MOU would further the efforts of the NERC and serve to highlight the Department's interagency commitment to electronic recycling and be responsive to private sector support. With your approval, I would sign the MOU on behalf of the Department of Energy. Since we are the last Party to sign, the MOU would come in force at the time of our signature.



APPROVE:

Spencer Abraham

DISAPPROVE: _____

DATE:

May 23, 2001

Attachments:

Tab A: Memorandum of Understanding

Tab B: 2001 White House Closing the Circle Award Winners

Concurrence:

EF

Eric Fygi, GC-1: _____

Date:

5/15/01



*White House Task Force on Greening the
Government Through Waste Prevention and
Recycling*

*1200 Pennsylvania Ave., N.W. Mail Code 1600S
Washington, DC 20460*

November 15, 2000

Mr. Gary King, Ph.D., J.D.
Director
Office of Worker and Community Transition
U.S. Department of Energy
1000 Independence Ave., S.W.
Washington, DC 20585

Dear Mr. King:

Please review the proposed Memorandum of Understanding (MOU) concerning environmental management of electronic equipment (enclosed) and provide DOE's coordination and execution.

As you know, our staffs have worked for the last few months on drafting this proposed MOU. They have done an excellent job in drafting a document that will help us establish a dynamic program to reduce the environmental impacts associated with the use and disposal of electronic equipment.

I would appreciate DOE's coordination and execution by December 1, 2000, so that we may move forward on this program. I look forward to your work on this important program once the MOU is signed. If you have any questions, please have your staff contact my Point of Contact for this issue, Ernest Woodson, at (202) 564-1078 or Woodson.ernest@epa.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Fran McPoland".

Fran McPoland
Federal Environmental Executive
Chair, White House Task force on Recycling and
Waste of Prevention

Enclosure

cc: Mr. Jack Blanchard, DOE

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**MEMORANDUM OF UNDERSTANDING FOR THE ESTABLISHMENT
AND OPERATION OF THE OFFICE OF ACCREDITATION
FOR FEDERAL LAW ENFORCEMENT TRAINING**

- I. This Memorandum of Understanding is between the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of Health and Human Services, the Department of the Interior, the Department of Justice, the Department of State, the Department of Transportation, the Department of the Treasury, the Inspector General community, the Department of Energy, and the Office of Personnel Management. The purpose of the memorandum is to establish a Federal Law Enforcement Training Accreditation process and Board. The operations of the Board shall be guided by a set of by-laws that will be established and approved by the members of the Board.

II. INTRODUCTION

- A. There is a recognized and demonstrated need within federal law enforcement agencies for establishment of standards for federal law enforcement training academies, training programs, and instructor certification. There is also a recognized need for an accreditation process to assist federal law enforcement agencies in meeting those standards, to monitor their success, and to recognize and certify that training standards have been met.
- B. All parties hereto agree that only through their joint participation, cooperation, and coordination can such an accreditation program be established and operated.
- C. The earliest possible activation of such an accreditation program is in the public interest in order to enhance and improve the confidence of the public in federal law enforcement organizations and personnel.

III. UNDERSTANDING

- A. All parties hereto agree to establish the Federal Law Enforcement Training Office of Accreditation (OA) to be:
1. Organizationally assigned to the Department of the Treasury's Federal Law Enforcement Training Center (FLETC), which shall provide the facilities, equipment, and support services for conducting accreditation activities by the OA.

2. Operated for the purposes set forth in this Memorandum of Understanding.

B. The Office of Accreditation shall:

1. Develop and maintain a staff to administer and execute appropriate accreditation communications, meetings, training, publications, and otherwise serve as the liaison and coordination point between the Board (see III.C. below) and the participating organizations.
2. Develop, maintain, improve, and publish manuals with standards for accrediting federal law enforcement training academies and programs, and for certifying federal law enforcement training instructors.
3. Develop and provide technical assistance to and consultation with federal law enforcement training agencies that receive and use the standards, conduct self-assessments, complete on-site assessments, and become accredited. Prepare and provide reports to the agencies and the Board.
4. Serve the Board by providing Board-member training, coordinating Board meetings, carrying out the Board's directions as related to the Director of the FLETC or the Executive Director of the Office of Accreditation.

C. In order to afford all parties to this Memorandum of Understanding a voice in the determination of the policies, procedures, standards, and programs of the Office of Accreditation, there is created a Federal Law Enforcement Training Accreditation Board.

The Board shall consist of 23 voting members to be appointed from the parties to this Memorandum of Understanding. Members are senior executives who have policy-making authority.

1. The voting members shall be appointed to 3-year terms as designated on the chart below and will include

representatives from bureaus within the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of Health and Human Services, the Department of the Interior, the Department of Justice, the Department of State, the Department of Transportation, and the Department of the Treasury; and a representative of the Inspector General community, the Department of Energy, and from the Office of Personnel Management. Once these members have been selected, they shall develop a process by which they may appoint a member of the federal judiciary, a federal public defender, a representative from an independent agency selected from those listed in Appendix A, a U. S. Attorney, and a representative from the U.S. Commission on Civil Rights. The Board may, by a majority vote of the members, increase the Board's membership or fill a vacancy on the Board that is created by the withdrawal of an agency or department.

VOTING MEMBERS	NON-VOTING CONSULTANTS
1-Department of Agriculture	1-Academia
1-Department of Commerce	1-ASCLD/LAB
2-Department of Defense	1-CALEA
1-Department of Health and Human Services	1-FLEOA
1-Department of Energy	1-IADLEST
2-Department of Interior	
3-Department of Justice	
1-Department of State	
1-Department of Transportation	
3-Department of Treasury (inc. 1-FLETC)	
1-Federal Judge	
1-Federal Public Defender	
1-Inspector General	
1-Independent Agency	
1-Office of Personnel Management	
1-U.S. Attorney	
1-U.S. Commission on Civil Rights	

2. One of the Treasury voting members shall be the Director of the Federal Law Enforcement Training Center (FLETC), who shall also serve as the Executive Secretary of the Board and perform the duties described in the by-laws.
 3. Four representatives of organizations with experience and expertise in accreditation may attend Board meetings and serve as consultants to the Board, together with a representative from the Federal Law Enforcement Officers' Association. The representatives shall be as follows:
 - a.) The Executive Director of the Commission for Accreditation of Law Enforcement Agencies, Inc. (CALEA) or a designee;
 - b.) The President of the International Association of Directors of Law Enforcement Standards and Training (IADLEST) or a designee;
 - c.) The Executive Director of the American Society of Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB) or a designee;
 - d.) The representative of an academic institution with an outstanding criminal justice program who shall be selected by the Board;
 - e.) A representative of the Federal Law Enforcement Officers' Association (FLEOA).
 4. The Board may change its composition according to options presented in its By-laws.
 5. The Board shall select a Chair and Vice Chair from the membership who shall serve 2-year terms according to the Bylaws.
 6. Board membership shall be for a period of 3 years.
- D. The Board shall have final authority over policies and procedures for the awarding of accreditation to federal law enforcement training academies and training programs, and the procedures for

certifying instructors of federal law enforcement training programs.
This authority shall include:

1. Developing, maintaining, and evaluating standards and awarding accreditation to federal law enforcement training academies and federal law enforcement training programs.
 2. Developing, maintaining, and evaluating standards and procedures for certifying instructors of federal law enforcement training programs.
- E. Upon becoming a party to this Memorandum of Understanding, an agency shall have agreed to abide by the provisions in this Memorandum of Understanding. This Memorandum of Understanding shall remain in effect with respect to the below-listed agencies until terminated by written notice to the participating agencies.
- F. Whenever two-thirds of the total voting members of the Board deem it necessary, the Board may either add or remove a federal law enforcement agency as a party to this Memorandum of Understanding.

This Memorandum of Understanding will become effective on the date of the last signature.

Department of Justice Date

Department of Agriculture Date

//SIGNED//
Department of Commerce Date

Department of Defense Date

//SIGNED//
Department of Health & Date
Human Services

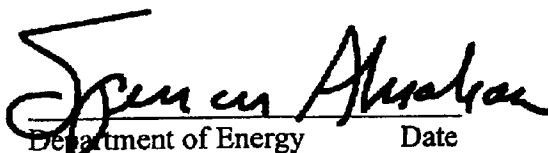
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PCIE/ECIE Date

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Department of the Interior Date

Department of the Treasury Date

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Department of State Date

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Department of Transportation Date



Department of Energy Date
1/27/03

//SIGNED//
Office of Personnel Date
Management

Appendix A

Independent Agencies

Amtrak

Northeast Corridor Police

Central Intelligence Agency

Office of Security

Environmental Protection Agency

Office of Criminal Investigations

Federal Emergency Management Agency

Security Division

General Services Administration

Office of Federal Protective Service

Smithsonian

National Zoological Park

Office of Protection Services

Tennessee Valley Authority

TVA Police

Office of the Inspector General

U.S. Postal Service

Postal Inspection Service – Postal Police

Ltr to Dr. Ronald Dempsey
Office of Accreditation

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
AND THE U.S. DEPARTMENT OF ENERGY**

I. INTRODUCTION

This Memorandum of Understanding (MOU) serves to set forth the authorities, responsibilities, and procedures between the Department of Health and Human Services (HHS) and the Department of Energy (DOE) to conduct statutorily mandated activities required to assist with claims processing under the Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA). The EEOICPA provides for timely, uniform, and adequate compensation of covered employees and, where applicable, survivors of such employees suffering from illnesses incurred by such employees in the performance of duty.

HHS and DOE will make every effort to ensure that activities conducted under this MOU, as well as those conducted through other mechanisms, are coordinated, nonduplicative, and supportive of a fair and timely compensation program for these workers and their survivors.

II. BACKGROUND

The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), Public Law 106-398, 114 Stat. 1654, 1654A-1231 (October 30, 2000), was enacted as Title XXXVI of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (42 U.S.C. § 7384 et seq.). EEOICPA establishes a compensation program to provide lump sum payments and medical benefits as compensation to covered employees suffering from designated illnesses that occurred as a result of their exposure to radiation, beryllium, or silica while in the performance of duty for the Department of Energy and certain of its vendors, contractors, and subcontractors. This law also provides for compensation payments to certain survivors of covered employees. In addition, the law requires DOE to assist DOE contractor employees who have illnesses caused by exposure to a toxic substance at a DOE facility to obtain benefits from State workers' compensation programs.

EEOICPA instructed the President to designate one or more Federal agencies to carry out the compensation program. Pursuant to this statutory provision, the President issued Executive Order 13179, titled "Providing Compensation to America's Nuclear Weapons Workers," which assigned primary responsibility for administering the compensation program to the Department of Labor (DOL). This Executive Order assigned certain specific responsibilities to HHS and DOE that are enumerated in other sections of this MOU. EEOICPA also instructed the President to establish and appoint an Advisory Board on Radiation and Worker Health.

III. PURPOSE

This MOU sets forth the guidelines for collaboration between HHS and DOE in carrying out their respective responsibilities under EEOICPA and Executive Order 13179. This MOU is not intended to affect existing MOUs and Interagency Agreements (IA) between HHS and DOE or to preclude HHS and DOE from entering into MOUs and IAs for other purposes.

IV. AUTHORITIES

This MOU is consistent with and is entered into under the authority of EEOICPA and Executive Order 13179.

V. RESPONSIBILITIES

A. GENERAL - Executive Order 13179

The responsibilities assigned to HHS by Executive Order 13179 that are relevant to actual or potential interactions between HHS and DOE are as follows:

1. Promulgate regulations establishing:
 - a) guidelines to assess the likelihood that an individual with cancer sustained the cancer in the performance of duty at a DOE facility or an atomic weapons employer facility (42 C.F.R. Part 81, Guidelines for Determining the Probability of Causation under EEOICPA), and
 - b) methods for arriving at and providing reasonable estimates of the radiation doses received by individuals applying for assistance under EEOICPA for whom there are inadequate records of radiation exposure (42 C.F.R. Part 82, Methods for Radiation Dose Reconstruction under EEOICPA).
2. Develop and implement procedures for considering and issuing determinations on petitions by classes of employees to be treated as members of the Special Exposure Cohort (SEC). (42 C.F.R. Part 83, Procedures for Designating Classes of Employees as Members of the Special Exposure Cohort under EEOICPA, proposed June 25, 2002).
3. With the assistance of DOE, apply the methods developed under 1(b), above, to estimate the radiation doses received by individuals applying for assistance under EEOICPA.
4. Upon request from DOE, appoint physicians to serve on panels to consider individual workers' applications filed with DOE under its Worker Assistance Program established under Subtitle D of EEOICPA.
5. Provide the Advisory Board on Radiation and Worker Health with administrative services, funds, facilities, staff, and other necessary support services to carry out its functions under EEOICPA and the Federal Advisory Committee Act.

The responsibilities assigned to DOE by Executive Order 13179 that are relevant to actual or potential interactions between DOE and HHS are as follows:

1. Provide HHS and the Advisory Board on Radiation and Worker Health access, in accordance with law, to all relevant information pertaining to worker exposures, including access to restricted data and any other technical assistance needed to carry out their responsibilities.
2. Upon request from HHS, and as permitted by law, require a DOE contractor or subcontractor to provide information relevant to a claim under EEOICPA.
3. Identify and notify potentially eligible individuals of the availability of compensation under EEOICPA.
4. Designate and list atomic weapons employers (AWEs) and beryllium vendors pursuant to EEOICPA and update these lists as required.
5. Establish a Worker Assistance Program to assist DOE contractor employees (and their survivors) whose illness is caused by exposure to a toxic substance at a DOE facility in filing a State workers' compensation system claim. One element of this assistance shall include submission of an application filed with DOE to physician panels appointed by HHS. DOE shall obtain an agreement with a State prior to submitting any cases from that State for review by a physician panel.

B. HHS Responsibilities

1. Identification of Data Needs

HHS will evaluate and identify the data, documents, and information that are relevant and necessary for carrying out its responsibilities under EEOICPA, including estimating radiation doses for individual covered employees with cancer, evaluating petitions by classes of employees for inclusion in the SEC, and evaluating residual contamination at AWEs and beryllium vendors.

In conducting these activities, HHS will strive for efficiency in collecting dose reconstruction information from DOE and its site contractors. To accomplish this goal, HHS will search relevant in-house data sources to ensure that requests for access to necessary information are not duplicative. HHS will request from DOE only the data and information relevant to individual worker claims to conduct dose reconstruction or evaluate SEC class petitions. In addition, as feasible, without delaying the individual dose reconstruction process and the consideration of SEC petitions, HHS will work with DOE to identify pertinent existing databases and general information needs relevant for entire processes, buildings, employment groups, or facilities. This approach of first using HHS held data and information and then collecting individualized data and, in parallel, seeking general and group data will facilitate timely and cost-efficient dose reconstructions and evaluation of SEC class petitions. It is expected that this approach will best enable the expeditious accretion of information and diminish the impact on DOE over time.

The types of individuals, group-based, or general information that may be relevant to HHS's responsibility include, but are not limited to, the following:

1. Individual worker monitoring data, such as dosimeter readings and bioassay sample results;
2. Employment history for individual workers;
3. Group worker monitoring data;
4. Workplace area monitoring data;
5. Process description information and process history;
6. Incident, safety, and accident reports;
7. Pertinent excerpts from employee medical records;
8. Information on the quantity and composition of radioactive substances, including the chemical form, particle size distribution, level of containment, and likelihood of dispersion; and
9. Identification, last known address, and phone numbers of current and former supervisors, occupational safety and health staff, and non-supervisory employees of DOE and its contractors, subcontractors, and AWEs with expertise on items 1-8 above.

A more complete list of information types that may be necessary and relevant for reconstructing individual doses or evaluating SEC petitions is shown in Table 1, attached. To achieve efficiency and minimize impact on DOE, HHS will request only the data and information necessary to complete a dose reconstruction or SEC petition evaluation.

HHS will be responsible for the management of all data collected by HHS employees and contractors, including data obtained from DOE and its contractors. HHS employees and contractors will maintain all data in accordance with relevant provisions of the Privacy Act. Should HHS have a question concerning the proper handling of a particular document or class of documents, HHS will consult with DOE.

HHS amended its Privacy Act Systems of Records for an existing National Institute for Occupational Safety and Health (NIOSH) system of records, 09-20-0147, "Occupational Health Epidemiologic Studies - HHS/CDC/NIOSH" on August 15, 2002, to include a new routine use required to carry out EEOICPA responsibilities.

2. Classification of Documents and Security Clearances

HHS personnel and contractors with appropriate security clearances will review documents and data deemed by HHS to be relevant and necessary for carrying out HHS responsibilities under EEOICPA. HHS will expedite completion of necessary applications for appropriate security clearances to facilitate DOE's clearance determinations and permit entry to DOE and DOE-owned contractor-operated facilities.

3. Requesting Data from DOE

HHS will direct requests for exposure information necessary to conduct dose reconstructions or evaluate SEC petitions to DOE or other points of contact identified by DOE. These requests will identify the specific type(s) of information needed, and, if appropriate, the identity of the employee(s) whose records are needed. These requests will indicate that a timely response is needed, and that if more than 60 days are required to provide the requested information, will ask to be notified promptly.

Approximately monthly, HHS will provide to DOE and each designated point of contact, a status report describing the number of requests sent, number of responses received to date, and a listing of any requests that are outstanding for more than 60, 90, 120, and 150 days. This report will also identify the status of follow-up requests for information.

4. Claimant Notification

HHS will provide final dose reconstruction results to DOE contemporaneously with reporting those results to the claimant and DOL.

5. Physician Panels

Upon request of DOE, HHS will appoint members of the physician panels funded and administered by DOE. HHS will consult with DOE concerning the appropriate disciplines and experience level needed by physician panel members based on expected distribution of cases to be referred to these panels. HHS will notify new panel members of their appointment, and transmit a list of appointed panel members to DOE. HHS will select panel members for reappointment in advance of the end of their term, and notify reappointed panel members and DOE of their reappointment. HHS, in consultation with DOE, will identify appropriate performance measures for physician panel members. HHS will evaluate the performance of physician panel members using these performance measures, and report the results to DOE. HHS will use the evaluations as it deems appropriate in considering reappointment of panel members to additional terms.

6. Provision of other Technical Assistance to DOE

Upon request, HHS will assist DOE with identifying, prioritizing, and, where possible, in accordance with applicable laws, accessing information held by NIOSH that is needed to process applications filed with DOE under Subtitle D of EEOICPA. DOE employees and contractors will maintain all data in accordance with relevant provisions of the Privacy Act. Should DOE have a question concerning the proper handling of a particular document or class of documents, DOE will consult with HHS. HHS also agrees to discuss with DOE how HHS can provide technical support to assist DOE in carrying out its responsibilities under Subtitle D.

7. Official Point of Contact

HHS designates the following individual as the official point of contact for this Memorandum of Understanding:

Name: John Howard, M.D.
Title: Director, National Institute for Occupational Safety and Health
Address: Room 715H
200 Independence Avenue, S.W.
Washington, D.C. 20201
Telephone: (202) 401-6997; Facsimile (202) 205-2207

C. DOE Responsibilities

1. Provision of Data to HHS

Upon request by HHS and consistent with applicable law, DOE will provide HHS and HHS contractors with access to and copies of data, documents and information deemed by HHS to be relevant and necessary for carrying out its responsibilities under EEOICPA, including estimating radiation doses for individual covered employees with cancer, evaluating petitions by classes of employees for inclusion in the SEC, and evaluating residual contamination at AWEs and beryllium vendors. This access includes access to restricted data, as defined in section 11 of the Atomic Energy Act of 1954 (42 U.S.C. § 2014 (y)).

DOE will provide HHS with data and information of the types described in section B. 1. above (items 1-9), and Table 1 (attached) as needed and where such information exists, to enable HHS to process current individual dose reconstructions and SEC class petitions, and to achieve more timely and cost-effective processing of future dose reconstructions and SEC class petitions. The primary strategy for achieving such increased timeliness and cost-effectiveness will be to provide HHS with information and records on a process, building, employment group, or facility-wide basis, which will gradually reduce the need for HHS to request information and records on a case-by-case basis for dose reconstructions and SEC class petitions at the time they are being processed.

DOE and HHS understand that while all the material in section B.1. above (items 1-9), and Table 1 (attached) is potentially relevant to each claim, the actual data necessary will vary among claims. DOE and HHS also recognize that information about worker exposures will vary from site to site. The agencies will work cooperatively to coordinate research and data retrieval activities to assist in an efficient and effective claims process.

DOE has established a new Privacy Act System of Records which includes the necessary routine uses required to carry out EEOICPA responsibilities for the following system of records:

1. DOE-10, Worker Advocacy Records.

DOE has amended its Privacy Act Systems of Records to include new routine uses required to carry out EEOICPA responsibilities for the following systems of records:

1. DOE-05, Personnel Records of Former Contractor Employees;
2. DOE-33, Personnel Medical Records;
3. DOE-35, Personnel Radiation Exposure Records;
4. DOE-71, The Radiation Accident Registry;
5. DOE-72, The Department of Energy Radiation Study Registry;
6. DOE-73, The US-DTPA Registry; and
7. DOE-88, Epidemiologic and Other Health Studies, Surveys and Surveillances.

DOE will seek to amend its Privacy Act Systems of Records to include a new routine use disclosure to HHS and its contractors pursuant to EEOICPA for the following systems of records:

1. DOE-2, DOE-Personnel Supervisor Maintained Personnel Records;
2. DOE-13, Payroll and Leave Records; and
3. DOE-38, Occupational and Industrial Accident Records.

DOE maintains a moratorium on destruction of records that may be useful for epidemiological purposes, and will continue to use that authority to maintain any records which are needed for dose reconstruction.

For the purpose of independently reviewing any records, information or data that HHS determines are relevant and necessary for carrying out its responsibilities under EEOICPA, and as consistent with applicable laws, DOE will allow HHS personnel, HHS contractors, and the Advisory Board, with appropriate clearances, access to DOE and DOE-owned contractor-operated facilities. DOE will provide HHS personnel and contractors copies of all records, information or data deemed relevant by HHS. Because EEOICPA requires timely compensation for covered employees, DOE will provide copies of records, information and data in a timely manner.

Upon request by NIOSH, DOE will provide certification that record searches requested by NIOSH have been completed. Although DOE will work to provide a comprehensive response to NIOSH requests, additional information relevant to a claim may be identified at a later date. When DOE identifies such additional information, DOE will immediately notify HHS that the new information has been found and will send HHS the additional information without delay.

2. Classification of Documents and Security Clearances

DOE and its contractors will continue to perform classification reviews of documents and data necessary for HHS to carry out its responsibilities under EEOICPA. HHS personnel, HHS

contractors, and the Advisory Board, with appropriate security clearances, will, in the course of carrying out responsibilities under EEOICPA, review classified and controlled documents and data to identify those that are needed to carry out various responsibilities under EEOICPA. DOE will, wherever possible and in a timely manner, declassify, downgrade, or redact these documents and data. DOE will facilitate HHS personnel and contractors obtaining appropriate security clearances. HHS and DOE will establish procedures to address those documents and data that cannot be declassified but may be necessary to complete dose reconstructions.

3. Provision of Other Technical Assistance to HHS

DOE will provide assistance to HHS, upon request, in identifying and accessing information needed to reconstruct radiation doses and evaluate petitions from classes of workers to be included in the SEC for claims and petitions received from current and former employees and survivors of AWEs. Other technical assistance will be provided to HHS, upon request, to aid in the development of strategies to identify and prioritize for study AWE or beryllium vendor facilities where significant contamination may have remained after activities relating to the production of nuclear weapons was discontinued.

4. Timeliness of Provision of Data and Technical Assistance

DOE understands that time is of the essence in terms of providing information to HHS. DOE will provide all requested information to HHS in a timely and efficient manner. If the requested information cannot be provided in a timely manner, DOE will provide whatever portion of the requested information is available and an estimate of when the remaining information will be produced. Following transmission of this estimate, DOE will continue to work to provide all requested information to HHS unless HHS notifies DOE that the remaining information is not required.

5. DOE Contractor and AWE Communication and Assistance

DOE will work with its current and former contractor community and other relevant parties such as AWEs, to facilitate access to information and records needed by HHS. DOE and HHS will work together to develop clauses to be added to agreements with DOE contractors to ensure that DOE contractors collect and maintain information needed to carry out DOE obligations under this MOU, and HHS and its agents have the necessary access to that information.

6. Physician Panels

DOE will notify HHS when additional appointments are needed for physician panels. When additional appointments are requested, DOE will provide HHS with information on the number of appointments needed, the jurisdiction and location(s) of the panels where appointments are needed, and the expertise needed in the members to be appointed. DOE will send each appointed panel member a welcome letter and program information.

Table 1
**Examples of Potentially Relevant Information for Reconstructing Doses and Evaluating
Special Exposure Cohort Petitions**

NIOSH considers the following types of information as potentially relevant in conducting dose reconstructions and evaluating petitions from classes of workers for inclusion in the Special Exposure Cohort. The necessity and availability of this information is expected to vary substantially from case to case, and this is not an exhaustive list of all information that may be required for HHS to perform its duties under EEOICPA. HHS will attempt to target its requests to those records necessary for specific dose reconstructions.

Worker monitoring data

- (1) external dosimetry data, including external dosimeter readings (film badge, TLD, neutron dosimeters)
- (2) pocket ionization chamber data.

Internal dosimetry data

- (1) urinalysis results
- (2) fecal sample results
- (3) *In Vivo* measurement results
- (4) incident investigation reports
- (5) breath radon and/or thoron results
- (6) nasal smear results
- (7) external contamination measurements

Monitoring program data

- (1) analytical methods used for bioassay analyses
- (2) performance characteristics of dosimeters for different radiation types
- (3) historical detection limits for bioassay samples and dosimeter badges
- (4) bioassay sample and dosimeter collection/exchange frequencies
- (5) documentation of record keeping practices used to censor data and/or administratively assigned dose

Workplace monitoring data

- (1) surface contamination surveys
- (2) general area air sampling results
- (3) breathing zone air sampling results
- (4) radon and/or thoron monitoring results
- (5) area radiation survey measurements (beta, gamma and neutron)
- (6) fixed location dosimeter results (beta, gamma and neutron)

Workplace characterization data

(1) Information on the external exposure environment, including: radiation type (gamma, x-ray, neutron, beta, other charged particle); radiation energy spectrum; uniformity of exposure (whole body vs partial body exposure); irradiation geometry; and work-required medical screening x rays.

Information characterizing internal exposure

- (1) radionuclide(s) and associated chemical forms
- (2) results of particle size distribution studies
- (3) respiratory protection practices

Process descriptions for each work location

- (1) general description of the process
- (2) characterization of the source term (i.e., the radionuclide and its quantity)
- (3) extent of encapsulation
- (4) methods of containment
- (5) other information to assess potential for airborne dispersion

7. Official Point of Contact

DOE designates the following individual as the official point of contact for this Memorandum of Understanding:

Name: Beverly Cook
Title: Assistant Secretary for Environment, Safety and Health
Address: U.S. Department of Energy
1000 Independence Avenue, S.W.
EH-1, Room 7A-097
Washington, D.C. 20585
Telephone: (202) 586-0264

VI. DURATION

This MOU, effective when signed by both parties, shall initially remain in effect through fiscal year 2007. The parties' current intent is to renew this agreement at that time.

VII. MODIFICATION OR CANCELLATION

This MOU or any of its specific provisions, may be canceled or amended by mutual, written agreement of both parties at any time. Cancellation of this MOU by one of the parties may be accomplished by a 90-day, advance written notification by either HHS or DOE to the other party.

VIII. RESPONSIBLE OFFICIALS

U. S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES

By: 

Claude Allen
Deputy Secretary

Date: 4/4/03

U.S. DEPARTMENT OF ENERGY

By: 

Kyle McSlarrow
Deputy Secretary

Date: 4/4/03

**Memorandum of Agreement
Between
Department of Energy
And
Department of Homeland Security**

I. Preamble

This Memorandum of Agreement (MOA) between the Department of Energy (DOE) and the Department of Homeland Security (DHS) establishes a framework for DHS to access the capabilities of various DOE assets. It recognizes that DOE and DHS anticipate that DOE capabilities may assist DHS in executing its mission.

II. Scope and Objectives

This MOA provides broad guidance to enable DHS to gain efficient access to specific DOE capabilities. Certain provisions of this agreement may continue to be refined, resulting in amendments and appendices to this MOA.

III. Nuclear Incident Response Team Assets

This MOA delineates specific functions and responsibilities relative to the control, utilization, exercise of, and standards for Nuclear Incident Response Team (NIRT) assets. NIRT assets (with the exception of the RAP, which may continue to self-deploy under circumstances where self-deployment is currently authorized) will deploy at the direction of DHS for domestic events in connection with an actual or threatened terrorist attack, major disaster, or other emergency in the United States. These assets are:

- Accident Response Group (ARG) – DHS will assume operational control of this asset when the response is at other than a DOE or DOD facility;
- Radiological Assistance Program (RAP) – DHS will assume operational control of this asset when the response is at other than a DOE facility; in instances of self-deployment, the RAP, in addition to following existing procedures for notifying DOE, will normally notify the DHS within fifteen minutes of receiving the request for deployment;
- Aerial Measuring System (AMS) and the National Atmospheric Advisory Release Capability (NARAC) – DHS will assume operational control of these assets when the response is at other than a DOE or DOD facility;
- Federal Radiological Monitoring and Assessment Center (FRMAC) and Radiation Emergency Assistance Center/Training Site (REAC/TS) – DHS will assume operational control of these assets when their capabilities are required; and

- Nuclear Emergency Support Team (NEST) – DHS will assume operational control when the capabilities of the NEST assets are required.

The particulars of deployment and operational command of these assets, including security requirements, funding and reimbursement of costs, are set forth in the Appendix to this document.

IV. Performing work at DOE Laboratories and Sites

The Secretary of Energy will make the resources and expertise of the DOE national laboratories and other DOE sites, including production plants, available to DHS on mutually acceptable terms.

Arrangements with DHS for it to fund and conduct work at DOE national laboratories and other sites will reflect the following elements:

- DHS-funded work at a DOE national laboratory or site will be performed on an equal basis to other missions at the laboratory or site and not on a noninterference basis with other missions of such laboratory or site.
- No added administrative or personnel charges in excess of those paid by DOE will be charged for DHS work.
- DHS and DOE will mutually determine what long-term arrangements best serve the needs of both Departments with respect to DHS access to the national laboratories. In the interim, DOE will make the national laboratories available to DHS under existing DOE contracts consistent with the other terms set out in this portion of the MOA.
- DHS work performed pursuant to this interim process will be accomplished through the issuance of work assignments using the system currently in place under the respective contracts and subject to the environmental, safety, security, intelligence, and counterintelligence policies and procedures that apply to DOE work at that location, except that the DHS financial and budget resource allocation decisions associated with DHS work will not require further DOE approval. The cost charged DHS for its activities at each DOE national laboratory or site will be consistent with the cost of similar work performed for DOE at that laboratory or site.
- DHS and DOE will establish appropriate mechanisms to resolve any issues relating to the prioritization of work that might arise at the site. To the extent that DHS work is conducted under a DOE contract, the resolution of any work prioritization issues will be communicated to the contractor exclusively through a DOE Contracting Officer. This MOA shall not be construed to be inconsistent with the Contracting Officers' authority over and responsibility for the administration of the site contracts..
- For work performed under DOE contracts pursuant to this interim process, the DOE Contracting Officer for each laboratory or site's operations will provide for the particulars of conducting DHS-funded work requests consistent with these elements.

DHS and DOE may also enter into basic ordering arrangements to have multiple projects performed at a particular DOE facility. DHS may establish by agreement with DOE an appropriate DHS presence at any DOE site to direct, coordinate, and monitor the DHS work being performed at that site. Site-specific details will be established through separate implementing agreements.

V. DHS Intelligence Activities at DOE National Laboratories and Other Sites

DHS projects and programs that utilize intelligence personnel, information, technology or systems at the DOE national laboratories or sites will be conducted through the Intelligence Work-for-Others Program (IWFO), administered by the DOE Office of Intelligence.

VI. Other Areas of Agreement

Access authorization: DOE-cleared personnel transferred to DHS and continuing to require access to DOE classified information and facilities will retain their current DOE access authorizations until DHS can maintain and administer clearance for those personnel. DOE will expedite the process for DHS personnel requiring initial Q or L clearances for access to DOE classified information and facilities. Previously granted SCI clearances for DOE personnel transferred to DHS also will be retained by DOE until such time as DHS assumes responsibility for maintaining and administering those clearances. All DOE security requirements pertaining to acquiring and maintaining clearances will apply to those DHS personnel afforded access under the terms of this MOA.

Special Access Programs: All work for DHS that is to be conducted as a special access program (SAP) in any DOE laboratory, plant, site or facility must be approved by the Executive Secretary, DOE Special Access Program Oversight Committee (SAPOC) prior to initiation of work. Intelligence SAPs must be reviewed and accepted by the DOE Director, Office of Intelligence, and are not under the purview of the SAPOC.

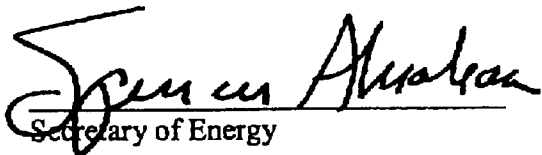
Counterintelligence: DHS will comply with the counterintelligence protections and requirements currently in place at DOE sites for any facilities at DOE sites where DHS may locate personnel pursuant to this agency agreement.

Role of the DOE Office of Independent Oversight and Performance Assurance (OA): DOE OA will provide independent oversight of all safeguards and security, cyber security for non-intelligence systems, emergency management, and environment, safety and health programs for DHS work performed at DOE facilities

Role of the DOE Office of Inspector General: All DHS work conducted at DOE facilities will be within the purview of the DOE OIG, in coordination with the DHS OIG.

VII. Termination, Modification and Sunset Review

This MOA is effective on the date of the last signature and will remain in effect until it is terminated by mutual agreement of the Parties or by either Party's providing ninety days' written notice to the other. This MOA may be modified at any time by written agreement of the Parties. Nothing in this MOA shall be interpreted to limit or otherwise affect any authorities, powers, rights, or privileges accorded to DHS or DOE or any of their officers, employees, or organizational units under any statute, rule, regulation, contract, or agreement.


Secretary of Energy

February 28, 2003
Date


Secretary of Homeland Security

Feb. 28, 2003
Date

Appendix

Nuclear Incident Response Team Assets

The Nuclear Incident Response Team (NIRT) is defined in the Homeland Security Act of 2002 as: "those entities of the Department of Energy that perform nuclear or radiological emergency support functions (including accident response, search response, advisory, and technical operations functions), radiation exposure functions at the medical assistance facility known as the Radiation Emergency Assistance Center/Training Site (REAC/TS), radiological assistance functions, and related functions." This Appendix delineates specific functions and responsibilities relative to the control, utilization, exercise of, and standards for those assets. The specific assets covered are:

- the Accident Response Group (ARG);
- the Aerial Measuring System (AMS);
- the Federal Radiological Monitoring and Assessment Center (FRMAC);
- the National Atmospheric Advisory Release Capability (NARAC);
- the teams that comprise the Nuclear Emergency Support Team (NEST);
- the Radiation Emergency Assistance Center/Training Site (REAC/TS); and
- the Radiological Assistance Program (RAP).

1. Deployment and Operational Control of the DOE Radiological Emergency Response Assets

The Parties agree that the radiological emergency response assets of DOE, with the exception of RAP, will deploy at the direction of the Secretary of Homeland Security (or other DHS official as authorized by law) for domestic events in connection with an actual or threatened terrorist attack, major disaster, or other emergency in the United States (as defined in the Homeland Security Act of 2002).

While deployed or when providing assistance, the DOE radiological emergency response assets or their emergency-specific activities associated with the assistance being provided shall fall under the operational control of the Secretary of Homeland Security for the length of the deployment. Under this Appendix, the Parties agree that operational control is the authoritative direction over all aspects of nuclear/radiological operations and provides the authority to perform those functions of command and control over the response assets involving planning, deploying, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control provides full authority to the Secretary of Homeland Security, or his designee, to organize the deployed assets and/or establish assistance priorities as necessary to accomplish assigned missions. It does not, per se, include responsibility for supplies, equipment, administration, discipline, or internal organization. Nor does it apply to those activities being performed by those assets that are not related to the emergency for which they are being deployed or for which their assistance was required. All operational

functions shall be consistent with current Presidential Decision Directives and Executive Orders. All deployed assets will support the designated Lead Federal Agency and the DHS-designated On-Scene Commander. Operational control of the assets by the Secretary of Homeland Security applies only within the United States. Policies and procedures related to DOE intelligence support for these activities will be covered under a separate appendix.

Specific direction for each response asset is detailed below:

ARG – DHS will assume operational control of this asset when the response is at other than a DOE or Department of Defense (DOD) facility.

RAP - DHS will assume operational control of this asset when the response is at other than a DOE facility. Radiological assistance through the RAP teams will continue to be available to all Federal, State, local, tribal authorities, commercial entities, and private citizens, upon request. RAP teams currently have the authority to self-deploy in order to provide this assistance in the timeliest manner. This authority to self-deploy remains unchanged; however, the RAP Regional Coordinator, or his designee, in addition to following existing procedures for notification of DOE, will normally notify the Secretary for Homeland Security or his designee, within 15 minutes of receiving the request for RAP support.

AMS and NARAC – DHS will assume operational control of these assets when they deploy for a response or the emergency-specific assistance being provided (e.g., modeling, dose projections/estimates, etc.) is at or for a location other than a DOE or DOD facility.

FRMAC and REAC/TS – DHS will assume operational control of these assets when their capabilities are required, they deploy for a response, or the emergency-specific assistance being provided (e.g., medical treatment advice, decontamination guidance, etc.) is at or for a location other than a DOE or DOD facility.

NEST – DHS will assume operational control when the capabilities of the NEST assets are required. While some of the teams under the NEST provide specific, time critical support to the DOD, they remain under the operational control of DHS.

2. Liaison Between DOE and DHS

The Parties agree that during a DHS deployment of the response assets, DOE will provide a liaison officer (DOE LNO) to the DHS Secretary, or his designee, to assist with incident management. The necessity for a DOE LNO for a RAP Team deployment will be decided jointly by DHS and DOE on a case-by-case basis. The DOE LNO will have knowledge of the DOE radiological emergency response assets, their capabilities, limitations, and employment. Additionally, DOE will designate and deploy a Senior Energy Official to the emergency location to act as the single point of contact for DOE nuclear/radiological support provided to the Lead Federal Agency and On-Scene

Commander. When a Senior Energy Official is designated, that person will report to the DHS Secretary, or his designee, for the duration of the deployment.

3. Exercises and Training

The DHS Secretary, or his designee, will plan, coordinate, and conduct exercises and training with the NIRT. Exercises and training will take the form of scheduled and no-notice readiness drills and deployments of all or part of DOE radiological emergency response assets. The Parties agree that DHS will provide funding to DOE for homeland security planning, exercises, and training. The DHS Secretary, or his designee, will coordinate and de-conflict the exercise and training schedule with all appropriate agencies and departments to ensure that no DOE radiological emergency response assets are tasked concurrently by multiple departments to support non-emergency-related activities.

4. Standards

The DHS Secretary, or his designee, will establish operational and technical standards for the NIRT. The operational standards will consist of statements of desired nuclear/radiological response capabilities. The technical standards will consist of criteria that delineate specific scientific requirements for the radiological response assets. These technical requirements will be coordinated with DOE and jointly managed between DHS and DOE. DHS will be responsible for the research, development, testing, fielding and funding of any new equipment required.

5. Safety and Security

The Parties agree that safety and security are paramount concerns when the NIRT is activated and DOE radiological emergency response assets are deployed. All existing DOE safety and security requirements for the DOE radiological emergency response assets shall remain in effect.

6. Financial Considerations

The DHS Secretary, or his designee, will establish a mechanism to reimburse DOE for services and equipment stipulated elsewhere in this Appendix.

With regard to available funding for NIRT, the Parties recognize that the total enacted funding (prior to the application of offsetting reductions directed by Congress) for DOE Nuclear Weapons Incident Response activities in FY 2003 is \$83.8 million and that the President's FY 2004 budget request for these activities is \$89.7 million. The Parties acknowledge that the amount set out in the President's FY 2004 request is needed to support the entire infrastructure of the assets and is not available solely for deployments. The Secretary of Energy and Secretary of Homeland Security, or their designees, will monitor available funding throughout the fiscal year and establish benchmarks to determine if budgetary resources are sufficient to meet anticipated deployment requirements. Should the Parties determine that available resources are not sufficient,

DHS and DOE jointly will pursue any additional funding required for anticipated deployments (to include reprogramming and appropriation transfer actions, budget amendment, or a Supplemental funding request) with the Office of Management and Budget and the Congress.

The Parties agree that, in the President's FY 2005 Budget Submission, DHS will request funds for necessary DHS deployment activities for the reimbursement to DOE as required based on the principle that the Department that directs the deployment is responsible for paying for the deployment.

7. "Hotwash" Lessons-Learned Sessions

DOE will invite representatives of DHS to participate in the "hotwash" lessons-learned sessions to be conducted by DOE after each DHS deployment or exercise.

8. DOE Order Review

DOE will review each DOE Order covering NIRT assets, including the pending proposed Order to consolidate all NIRT Orders ("NIRT Consolidation Order"), and insure that the requirements of the final NIRT Consolidation Order are consistent with the DOE-DHS Memorandum of Understanding (MOU), including this Appendix. DOE will provide the relevant existing Orders and draft NIRT Consolidation Order to DHS and consult it with respect to any changes that either Party believes necessary. In the event of an inconsistency with the MOU before the inconsistency is corrected in the issuance of the final NIRT Consolidation Order, the Parties will agree on interim measures.

U.S. Department of Energy
Washington, D.C.

NOTICE

DRAFT
DOE N 481.X

2003-002486

Approved: XX-XX-03
Expires: XX-XX-04

SUBJECT: REIMBURSABLE WORK FOR DEPARTMENT OF HOMELAND SECURITY

1. **OBJECTIVE.** To authorize a modified process for the acceptance, performance, and administration of work from the Department of Homeland Security (DHS) by Department of Energy (DOE) contractor and federally operated laboratories, sites, and other facilities.
2. **CANCELLATIONS.** None.
3. **APPLICABILITY.**
 - a. **DOE Elements.** This Notice applies to all DOE elements listed in Attachment 1, including the National Nuclear Security Administration (NNSA).
 - b. **Site/Facility Management Contracts.**
 - (1) The Contractor Requirements Document (CRD), Attachment 2, sets forth requirements of this Notice that, on an interim basis, will apply to site/facility management contracts that include the CRD.
 - (2) This Notice does not automatically apply to other than site/facility management contracts. Any application of any requirements of this Notice to other than site/facility management contracts will be communicated separately from this Notice.
 - (3) Contracting officers are responsible for incorporating the CRD into site/facility management contracts via the Laws, Regulations, and DOE Directives clause of the contracts.
 - (4) As the Laws, Regulations, and DOE Directives clause of site/facility management contracts states, regardless of the performer of the work, a site/facility management contractor with the CRD incorporated into its contract is responsible for compliance with the requirements of the CRD.
 - c. **Exclusions.** None.
4. **BACKGROUND.** DOE O 481.1B, *Work for Others (Non-Department of Energy Funded Work)*, dated 9-28-01, sets forth the objectives, applicability, requirements, and responsibilities for DOE Federal employees and DOE contractor personnel performing work and/or using DOE facilities to perform work that has not been directly funded by

DISTRIBUTION:
All Department Elements


INITIATED BY:
Office of Management, Budget and Evaluation/CFO

DOE appropriations for non-DOE entities. Among other things, the Order requires certain determinations be made consistent with the requirements of the Economy Act of 1932, as amended (31 U.S.C. 1535), and the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), and their implementing regulations. The Order also provides requirements for the reimbursement of costs and payment of other charges.

The Homeland Security Act of 2002 (Act) authorizes DHS to access the capabilities of DOE's laboratories and other sites to further DHS mission objectives. In order to ensure the availability of DOE capabilities under the existing site contracts on March 1, 2003, the Secretary of Energy and the Secretary of Homeland Security entered into a Memorandum of Agreement, dated February 28, 2003. This MOA, among other things, implements provisions of the Act specifying that, notwithstanding any other law governing the administration, mission, use or operation of any DOE national laboratories or sites, DOE may accept and perform work for DHS at those laboratories and sites, consistent with the resources provided, and perform the work on an equal basis with other missions at the site and not on a non-interference basis with other missions of the site. The Act further provides that DHS will reimburse DOE for the work performed through a method under which DOE waives any requirement for DHS to pay administrative charges or personnel costs of DOE or its contractors in excess of the amount that DOE pays for work performed by its contractors. Lastly, under the Act, DHS funds are not to be expended for laboratory directed research and development unless such activities support the missions of DHS.

5. REQUIREMENTS. Work for DHS shall be accepted, performed, and administered in accordance with the terms of the attached MOA. The Office of Management, Budget and Evaluation, in coordination with the Office of General Counsel and the National Nuclear Security Administration, are in the process of developing additional information and direction to cognizant DOE contracting officers and other affected Federal and contractor personnel identifying the processes and requirements to ensure the efficient implementation of the MOA.

BY ORDER OF THE SECRETARY OF ENERGY:



KYLE E. McSLARROW
Deputy Secretary

DOE ORGANIZATIONS TO WHICH DOE N 481.X IS APPLICABLE

Office of the Secretary
Chief Information Officer
Office of Civilian Radioactive Waste Management
Office of Congressional and Intergovernmental Affairs
Office of Counterintelligence
Departmental Representative to the Defense Nuclear Facilities Safety Board
Office of Economic Impact and Diversity
Office of Energy Efficiency and Renewable Energy
Energy Information Administration
Office of Environment, Safety and Health
Office of Environmental Management
Office of Fossil Energy
Office of General Counsel
Office of Hearings and Appeals
Office of Independent Oversight and Performance Assurance
Office of the Inspector General
Office of Intelligence
Office of Management, Budget and Evaluation and Chief Financial Officer
National Nuclear Security Administration
Office of Nuclear Energy, Science and Technology
Office of Policy and International Affairs
Office of Public Affairs
Office of Science
Secretary of Energy Advisory Board
Office of Security
Office of Worker and Community Transition
Office of Energy Assurance

Attachment 1
Page 2

DOE N 481.X
DRAFT XX-XX-03

Bonneville Power Administration

Southeastern Power Administration

Southwestern Power Administration

Western Area Power Administration

CONTRACTOR REQUIREMENTS DOCUMENT

DOE N 481.X, *Reimbursable Work for Department of Homeland Security*

This Contractor Requirements Document (CRD) establishes the requirements for Department of Energy (DOE) contractors, including National Nuclear Security Administration contractors, performing work and/or using DOE facilities to perform work not directly funded by DOE appropriations for the Department of Homeland Security (DHS). Contractors must comply with the requirements listed in the CRD to the extent set forth in their contracts.

Regardless of the performer of the work, contractors with the CRD incorporated into their contracts are responsible for compliance with the requirements of the CRD.

DOE contractors with the CRD incorporated into their contracts must comply with the requirements of DOE N 481.X, *Reimbursable Work for Department of Homeland Security*, dated XX-XX-03, including its attached Memorandum of Agreement, and otherwise applicable rules, regulations, and directives. Further, the contractor must perform work for DHS according to any additional processes and/or requirements developed by DOE and conveyed to the contractor regarding performance of work for DHS.



The Deputy Secretary of Energy
Washington, DC 20585

2003-002486

February 28, 2003

MEMORANDUM FOR UNDER SECRETARY
 FOR ENERGY SCIENCE AND ENVIRONMENT

 ACTING UNDER SECRETARY
 FOR NUCLEAR SECURITY

SUBJECT: Implementation of Memorandum of Agreement
 between the Department of Energy (DOE) and
 Department of Homeland Security (DHS), dated
 February 28, 2003

Effective today, the Secretary has entered into a Memorandum of Agreement (MOA) with the Secretary for Homeland Security to establish a framework to ensure that the capabilities of DOE's national laboratories and sites, including the production plants, are made available to DHS for its missions on an efficient basis. Additionally, effective today I have issued a DOE Notice specifying how DOE elements and site/facility management contractors shall provide reimbursable work to DHS in accordance with a modified work for others process, subject to the terms of the MOA. A copy of both documents is attached. A general process guide is being developed for DHS consistent with the foregoing.

Please ensure that your constituent organizations, Headquarters and field, as well as site/facility management contractors over which you have cognizance implement these processes immediately. The Office of General Counsel and the Office of Management, Budget and Evaluation, in coordination with the National Nuclear Security Administration, will provide additional information and guidance to your organizations to facilitate implementation, including a tutorial on the unique aspects of the process by which DHS missions will be served.


KYLE E. MCSLARROW

Attachments



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**Memorandum of Understanding
On Policy Principles For**

**Woody Biomass Utilization for Restoration and Fuel Treatments
On Forests, Woodlands, and Rangelands**

**United States Department of Agriculture
And
United States Department of Energy
And
United States Department of the Interior**

THIS MEMORANDUM OF UNDERSTANDING (MOU) is hereby entered into by and among the United States Department of Agriculture, the United States Department of Energy, and the United States Department of the Interior.

Preamble: The Secretaries support the utilization of woody biomass by-products from restoration and fuels treatment projects wherever ecologically and economically appropriate and in accordance with the law.

A. PURPOSE:

The purpose of this MOU is to demonstrate a commitment to develop and apply consistent and complementary policies and procedures across three Federal departments to encourage utilization of woody biomass by-products that result from forest, woodland, and rangeland restoration and fuel treatments when ecologically, economically, and legally appropriate, and consistent with locally developed land management plans, by:

- Communicating to our employees and partners that the harvest and utilization of woody biomass by-products can be an effective restoration and hazardous fuel reduction tool that delivers economic and environmental benefits and efficiencies;
- Promoting consideration of woody biomass utilization from restoration and fuels treatment instead of burning or other on-site disposal methods; and
- Encouraging development of new mechanisms that increase the benefits and efficiencies of woody biomass utilization.

This MOU is intended to maximize the coordination and effectiveness of the Departments of the Interior (DOI), Agriculture (USDA), and Energy (DOE) in furthering the purposes set forth in this MOU.

B. STATEMENT OF MUTUAL INTERESTS:

Background: Today between 100 and 200 million acres of America's Federal lands are at risk of catastrophic wildfires in large part due to significant changes in forest and woodland structure that have occurred in the last century. Widespread wildfire suppression and past forest, woodland, and rangeland management activities have contributed to these changes. Innovative, large scale management is needed to restore at-risk ecosystems to healthy and resilient conditions.

In 2002, 7.2 million acres of Federal lands burned, nearly double the ten-year average. This followed the devastating 2000 wildfire season, during which over 8.4 million acres burned and which prompted development of the National Fire Plan. President Bush has focused attention on this issue in his Healthy Forests Initiative.

The President's Healthy Forests Initiative, the National Fire Plan and the joint Federal-State 10-year Comprehensive Strategy Implementation Plan all call for biomass and wood fiber utilization as an integral component of restoring our Nation's precious forests, woodlands, and rangelands. Biomass utilization can also meet a key objective of the National Energy Policy by contributing to diversification of the Nation's energy supply. Further, the August 20, 2002, *White House Report In Response to the National Energy Policy Recommendations to Increase Renewable Energy Production on Federal Lands* includes a Proposed Action (3.3) to "Establish a Biomass Initiative at the Department of the Interior." The Report was prepared by DOE and DOI but includes a number of actions by, and related to, USDA biomass utilization efforts. Coordination between DOI, USDA, and DOE is important to the success of these initiatives, as is working cooperatively with States, Tribes, private landowners, Non-Governmental Organizations, and other interested parties and potential partners.

In this MOU, *restoration* refers to those management actions that seek to restore forest, woodland, and/or rangeland health, including such things as thinning and other stocking control actions, species conversion, invasive species management, insect and disease management, and soil and water conservation actions. In this MOU, *fuels treatment* and *hazardous fuel reduction* are synonymous terms and refer to management actions that seek to reduce the rate of spread, intensity, resistance to control, and crowning potential of wildfires by reducing available fuel; examples include thinning, chipping, crushing, piling, burning, and actions that reduce or remove live and dead woody fuels. In this MOU, *woody biomass* is defined as the trees and woody plants, including limbs, tops, needles, leaves, and other woody parts, grown in a forest, woodland, or rangeland environment, that are the by-products of restoration and hazardous fuel reduction treatments. In this MOU, *woody biomass utilization* is defined as the harvest, sale, offer, trade, and/or utilization of woody biomass to produce the full range of wood products, including timber, engineered lumber, paper and pulp, furniture and value-added commodities, and bio-energy and/or bio-based products such as plastics, ethanol, and diesel.

Need for this MOU: USDA is responsible for the management of 192 million acres of National Forest System lands and for assisting in the management of 430 million acres of State and private forest lands. DOI is responsible for the management of 507 million acres of surface

lands, of which approximately 120 million acres are forest and woodlands. DOE provides significant technical expertise in biomass energy and linkages to the renewable energy industry. In addition, public assistance and grants programs administered by these three departments have positive benefits in capacity-building for woody biomass utilization in local communities, industries, and on private lands. Energy is a key market for low-value woody biomass, and DOE and USDA fund, support, and/or conduct a major share of the research concerning biomass energy alternatives.

Within the Federal family, these three departments profoundly affect whether and how woody biomass utilization is employed as a tool for forest, woodland, and rangeland restoration and fuels treatment. The development and implementation of consistent and complementary policies and procedures can help maximize Federal efficiency and effectiveness of woody biomass utilization.

Woody biomass utilization can help reduce or offset the cost and increase the quality of the restoration or hazardous fuel reduction treatments. Woody biomass utilization can also have additional value in that it may result in more diverse forest ecosystems, characterized by native flora and fauna, healthy watersheds, better air quality, improved scenic qualities, more fire-resilient landscapes, and reduced wildfire threats to communities, and may provide an alternative waste management strategy.

C. POLICY PRINCIPLES

DOI, DOE and USDA will use their statutory authorities to support the Principles listed below, as appropriate:

1) Include local communities, interested parties, and the general public in the formulation and consideration of woody biomass utilization strategies.

Examples:

- Communications that further the understanding that the implementation of the President's Healthy Forests Initiative and National Fire Plan go beyond Federal boundaries and affect local communities.
- Collaborative partnerships and public involvement programs and projects that provide value and enhance the economics, successes, and opportunities of utilizing woody biomass.
- Efforts to share knowledge and technology with community leaders, business owners, and private forest landowners.

2) Promote public understanding of the quantity and quality of woody biomass that may be made available from Federal lands and neighboring Tribal, State, and private forests, woodlands, and rangelands nationwide.

Examples:

- Inventory and analyze known geographic, transportation, and land use designation parameters.
- Evaluate woody biomass utilization capability in communities near restoration and hazardous fuel reduction areas on Federal lands.
- Verify fire condition classes of Federal forests and woodlands.
- Inventory and classify woody material by condition classes.
- Assist non-Federal partners with assessments of biomass quantity and availability on non-Federal lands.

3) Promote public understanding that woody biomass utilization may be an effective tool for restoration and fuels treatment projects.

Examples:

- Encourage science-based analysis at the appropriate land use planning level for decisions whether to make woody biomass available for utilization.
- Emphasize local efforts directed at woody biomass availability and utilization.
- Encourage market analysis or forest products appraisal to determine whether woody biomass utilization should have preference over disposal through chipping, crushing, burning, and/or other on-site disposal methods.
- Explore landscape-level analysis and fine-scale resolution of forests, woodlands, and rangelands to support management, restoration, and hazardous fuel reduction treatments.
- Encourage strategies for economic development in local and rural communities for value-added wood products and woody biomass utilization.

4) Develop and apply the best scientific knowledge pertaining to woody biomass utilization and forest management practices for reducing hazardous fuels and improving forest health.

Examples:

- Continue to expand knowledge of bio-based products and bio-energy from wood fiber using the Biomass Research and Development Act of 2000, the Farm Security and Rural Investment Act of 2002, and other applicable authorities.
- Strengthen research and development capacity for woody biomass products and energy research, and sustainable forest harvesting and processing systems for small diameter material.
- Assist States and private non-industrial landowners in using short-rotation cropping

- systems and developing low-value product markets.
- Map woody biomass utilization capacity.

5) Encourage the sustainable development and stabilization of woody biomass utilization markets.

Examples:

- Promote renewable energy marketing strategies to stimulate investments in woody biomass utilization.
- Support efforts to allow retail electric power customers an option to pay an appropriate premium to purchase electricity generated from woody biomass resulting from restoration or hazardous fuels treatments.
- Encourage the production and marketing of electric energy generated from woody biomass resulting from restoration or hazardous fuels treatment.
- Inform the public of available Federal financial assistance to encourage the utilization of woody biomass from restoration and hazardous fuels treatments.
- Explore biomass transportation cost subsidies from the forest to point of use, where doing so saves or avoids higher costs of treatments or fire-fighting in the future.
- Promote new utilization technologies and technology transfer, research, and development of bio-ethanol and other bio-based products.

6) Support Indian Tribes, as appropriate, in the development and establishment of woody biomass utilization within Tribal communities as a means of creating jobs, establishing infrastructure, and supporting new economic opportunities.

Examples:

- Encourage the use of guaranteed or insured loans under the Indian Financing Act, 25 USC §1451 et seq., to the extent permissible under existing law, including a possible set-aside for pilot projects that support development of woody biomass generation utilizing hazardous fuels and by-products of forest health treatments.
- Use the Buy Indian Act, 25 USC §47, to the extent permissible by law, in the purchase or procurement of woody biomass products resulting from Indian labor or industry.
- Provide technical and policy assistance to Tribal governments for the establishment of woody biomass programs.
- Assess extent of woody biomass fuels on Indian lands.

7) Explore opportunities to provide a reliable, sustainable supply of woody biomass.

Examples:

- Investigate the feasibility of long-term or renewable contracts for removal of woody biomass from Federal lands.

- Explore expanded use of contracting authorities and mechanisms for hazardous fuel reduction or restoration treatments on public lands.
- Expedite, as appropriate, environmental analysis and review for priority restoration and hazardous fuel reduction sites in Federal forests, woodlands, and rangelands.

8) Develop and apply meaningful measures of successful outcomes in woody biomass utilization.

Examples:

- Social, economic, and environmental sustainability measures.
- Measures of unit-cost reductions in hazardous fuel treatment and forest health treatment through offset by woody biomass utilization.
- Performance or workload measures to track targets and accomplishments in the offer and sale of woody biomass from Federal lands.

D. IT IS MUTUALLY UNDERSTOOD BY ALL PARTIES THAT:

1) AUTHORITIES. These Principles will be implemented under the relevant authorities of the three Departments that are parties to this MOU.

2) TERMINATION. Any of the three Departments may terminate its participation in and agreement to this MOU, in whole or in part, at any time.

3) PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the three Departments from participating in similar activities with other public or private agencies, organizations, and individuals.

4) PRINCIPAL CONTACTS. The principal contacts for this agreement are:

John Sebelius	John Stewart	John Ferrell
USDA Forest Service	USDOJ	USDOE
Research and Development	Wildland Fire Coordination	Office of Energy Efficiency
P.O. Box 96090	Room 3060, Main Interior Bldg	and Renewable Energy
Washington, DC 20090	Washington, DC 20240	1000 Independence Ave, SW
		Washington, DC 20585-0121

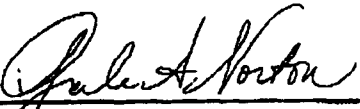
5) NON-FUND OBLIGATION DOCUMENT. This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value. If it is necessary to expend, exchange, or reimburse funds for any supplies or services, it will be accomplished under a separate contract or agreement approved by an authorized individual, and such expenditures are subject to the availability of appropriations.

6) NO RIGHT OF ACTION. This MOU is strictly for internal management purposes for the Federal Government. It is not legally enforceable and shall not be construed to create any legal obligation on the part of the signatory Secretaries or their respective Departments. This agreement shall not be construed to provide a private right or cause for action by any person or entity.

7) **MODIFICATION.** The Principles in this MOU are subject to relevant law, as it may be amended from time to time. Additionally, the parties may modify this MOU at any time by a written amendment executed by all parties.

8) **COMPLETION DATE.** This MOU is executed and made effective as of the last date shown below and shall expire ten years after such date.

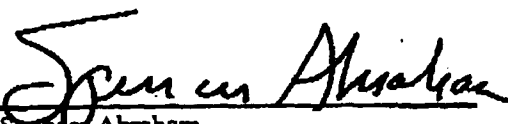
THE PARTIES HERETO have executed this MOU.



Gale A. Norton
Secretary of the Interior

JUN 18 2003

Date



Spencer Abraham
Secretary of Energy

6/17/03

Date



Ann M. Veneman
Secretary of Agriculture

6/16/03

Date

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE U. S. DEPARTMENT OF DEFENSE AND
U.S. DEPARTMENT OF ENERGY FOR THE
COORDINATION OF HIGH-END COMPUTING ACTIVITIES**

Purpose

The purpose of this Memorandum of Understanding (MOU) is to establish a framework for planning and coordinating research, development, engineering, and test and evaluation activities related to high-end computing between the Department of Energy (DOE) and the Department of Defense (DOD). Both Departments have many interests that can be best served by coordinating and collaboration. This MOU builds on existing cooperation between the two Departments to ensure maximum impact of Federal investment in this area.

For the DOD, the scope of this memorandum is limited to research, development, engineering, and test and evaluation activities related to high-end computing activities conducted within Defense Advanced Research Projects Agency (DARPA), DOD High Performance Computing Modernization Program, and the National Security Agency.

For the DOE, the scope of this memorandum is limited to research, development, engineering, and test and evaluation activities related to high-end computing activities conducted within DOE Office of Science (SC) and DOE National Nuclear Security Administration (NNSA).

Background

There has been, for over a decade, significant cooperation between DOD and DOE in research in software and hardware for high-end computers, performance evaluation of high-end computers, and testbeds for evaluation of new architectures.

In addition, a recently initiated federal planning activity established through the National Security Technology Council (which reports to the Office of Science and Technology Policy) has identified clear opportunities for interagency cooperation in high-end computing to serve the nation. This planning activity, known as the High End Computing Revitalization Task Force, is chaired by DOE and DOD. The purpose of this MOU is to formalize ongoing collaborations and provide a framework and mechanism for tracking and improving cooperation between the two Departments in the area of high-end computing.

3.0 Scope of Activities

There currently exist, or are in the planning stage, a number of areas of research related to high end computers where further coordination would be valuable.

Examples of these types of activities would include:

- * Performance Evaluation of High-End Computers - DOD and DOE have critical needs for improved techniques and technologies for modeling the performance of applications on high-end computers. Currently, DOE and

DOD are collaborating in activities as the DOE SC Performance Evaluation Research Center and DARPA High-Productivity Computing Systems Program. Improved coordination and collaboration will increase resource sharing in this area.

- Development of Benchmarks - Both Departments use benchmarks to support the procurement of new high-end computers. Joint efforts to explore the development of common core benchmarks could simplify procurements and improve Government interactions with vendors.
- Advanced Computer Architectures - DOD has considerable experience and investments in the development of advanced computer architectures. Also, DOE has continued investments in this area. Exploring resource pooling and joint funding of selected programs could provide a more effective approach for new system development.

System Test and Evaluation - DOE has decades of experience in evaluating early versions of new architectures and transforming them into tools for scientific discovery. DOD does such testing, but at a much more limited scale. Sharing of technical data and expertise would reduce the risk for system development and procurement.

Software - Both Departments rely on underlying mathematical libraries and system software that must be developed or sponsored by the government. Additional coordination in this area could deliver significant benefits to end users of high end computing in both Departments.

4.0 Responsibilities

4.1 DOD Responsibilities

- * DOD will participate in the development of the Joint DOD/DOE Annual High-End Computing Plan (AHECP) to be delivered to the principals in August of each year.
- * DOD will ensure coordination of the activities for which the AHECP assigns it primary responsibility with DOE through mechanisms that include participation of DOD staff on review panels and coordinated solicitations for proposals.

4.2 DOE Responsibilities

- * DOE will participate in the development of the Joint DOD, DOE-SC and DOE-NNSA Annual High-End Computing Plan (AHECP) to be delivered to the principals in August of each year.
- * DOE will ensure coordination of the activities for which the AHECP assigns it primary responsibility with DOD through mechanisms that include participation of DOE staff on review panels and coordinated solicitations for proposals.

5.0 Management Arrangements

5.1 Participating Parties

The DOD point of contact shall be the Director of Information Systems, Office of the Deputy Under Secretary of Defense for Science and

Technology. The DOE-SC point of contact shall be the Associate Director for Advanced Scientific Computing Research. The DOE-NNSA point of contact shall be Director of the Office of Advanced Simulation and Computing.

5.2 Funding

This MOU does not require the obligation, commitment or transfer of funds. To the extent that it is necessary, DOE and DOD will provide each other mutual support in making budget justifications to OMB and in preparing for hearings before Congress with respect to programs on which the organizations collaborate.

5.3 Annual High-End Computing Plan

In August of each year DOD and DOE will deliver to the DOE Director of the Office of Science, Under Secretary of Energy for Nuclear Security and the DOD Deputy Under Secretary of Defense for Science and Technology a joint plan for the coming Fiscal year. This plan will include an overview of the progress of coordinated activities in the previous fiscal year, as well as a description of activities to be coordinated and strategies for accomplishing and managing this coordination.

5.4 Administration

This MOU in no way restricts the parties from participating in any activity with any other public or private agencies, organizations of individuals. This MOU is strictly for internal management purposes of each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of the parties. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

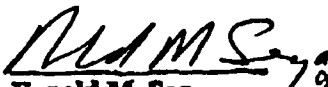
6.0 Sunset Clause


This MOU shall be reviewed every two years to determine its continued relevance and the need for any changes. This MOU may be terminated at any time by mutual agreement or by either party alone by giving the other six months written notice. This document can be amended by mutual agreement of the parties.

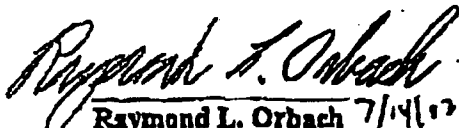
7.0 Effective Date

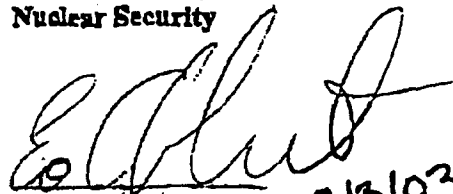
This Memorandum of Understanding is effective upon execution by all parties.

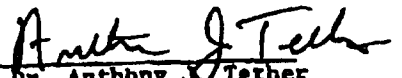
OFFICIAL USE ONLY


Ronald M. Segal 9/24/03
Director, Defense Research
and Engineering


Linton F. Brooks 8/29/03
Under Secretary for
Nuclear Security


Raymond L. Orbach 7/14/03
Director, Office of
Science


Eric C. Haseltine 9/3/03
Director of Research
National Security Agency


Dr. Anthony J. Tether 11/4/03
Director, Defense Advanced Research
Projects Agency

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Department of Energy
Executive Secretariat

June 23, 2003

TO: UNDER SECRETARY CARD
NNSA/LINTON BROOKS
GC/LEE LIBERMAN OTIS
IM/KAREN EVANS ✓

FROM: *Carac*
for JAMES N. SOLIT

Doel
CIO

I am requesting that you reconcur/nonconcur on the attached document by initialing below and returning it to the Executive Secretariat.

Please note that this document has been revised.

I am also requesting that you review and return this item to the Executive Secretariat within one work day.

Thank you.

Concur *KSE* Nonconcur _____ Date *6/25/03*

Attachment:

2003-007298



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MEMORANDUM OF UNDERSTANDING

AMONG the

U.S. DEPARTMENT OF TRANSPORTATION

U.S. DEPARTMENT OF ENERGY

AND

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

on pipeline integrity, safety, and reliability research and development

I. PURPOSE

The purpose of this Memorandum of Understanding (MOU) is to detail the responsibilities of the U.S. Department of Transportation (DOT), the U.S. Department of Energy (DOE), and the National Institute of Standards and Technology (NIST) (together, "the Participating Agencies") in a program of research, development, demonstration, and standardization to ensure the integrity of pipeline facilities. This MOU identifies program elements, as well as specific areas of agency expertise, and establishes a framework for coordination and collaboration by the Participating Agencies.

II. BACKGROUND

The United States is critically dependent on natural gas and petroleum liquids transported through pipelines. The pipeline infrastructure that currently transports these energy resources is facing age-related impacts on system integrity. While new pipelines are being constructed, pipeline operators typically plan on continued operation of the vast majority of existing pipeline mileage. Ensuring the long-term integrity and security of these existing pipelines through the application of improved technology is essential.

Section 12 of the *Pipeline Safety Improvement Act of 2002* ("the Act"), Public Law 107-355, requires the Participating Agencies to carry out a program of research, development, demonstration, and standardization to ensure the integrity of pipeline facilities. Furthermore, the Act requires the Participating Agencies to enter into an MOU detailing their respective responsibilities, and to periodically report to Congress on program plans and implementation status.

The Participating Agencies recognize the need to work together to identify pipeline facility research priorities, discern the most promising research proposals, avoid duplication of research and development efforts, assure coordination and collaboration, advance technological solutions, and involve outside stakeholders. Consistent with the Act, and in

recognition that pipeline integrity is a shared responsibility, the Participating Agencies enter into this MOU.

III. AUTHORITY

A. DOT enters into this MOU under authority of Public Law 107-355 §12, 49 U.S.C. §§ 60101 *et seq.* and 322, and 49 C.F.R. §§ 1.45(a) and 1.53.

B. DOE enters into this MOU under authority of Public Law 107-355 § 12 and 42 U.S.C. § 7101 *et seq.*

C. NIST enters into this MOU under authority of Public Law 107-355 § 12 and 15 U.S.C. § 271 *et seq.*

IV. RESPONSIBILITIES OF PARTICIPATING AGENCIES

A. Program Elements: The Act requires the Participating Agencies to carry out a program that includes research, development, demonstration, and standardization activities related to the following elements:

1. Materials inspection;
2. Stress and fracture analysis, detection of cracks, corrosion, abrasion, and other abnormalities inside pipelines that lead to pipeline failure, and development of new equipment or technologies that are inserted into pipelines to detect anomalies;
3. Internal inspection and leak detection technologies, including detection of leaks at very low volumes;
4. Methods of analyzing content of pipeline throughput;
5. Pipeline security, including improving the real-time surveillance of pipeline rights-of-way, developing tools for evaluating and enhancing pipeline security and infrastructure, reducing natural, technological, and terrorists threats, and protecting first response units and persons near an incident;
6. Risk assessment methodology, including vulnerability assessment and reduction of third-party damage;
7. Communication, control, and information systems surety;
8. Fire safety of pipelines;
9. Improved excavation, construction, and repair technologies; and

10. Other appropriate elements.

B. Areas of Agency Expertise: Each Participating Agency has primary responsibility for implementing program elements within its expertise:

1. DOT's Research and Special Programs Administration (RSPA) has the lead role in pipeline facility research, development, demonstration, and standardization as it pertains to natural gas and hazardous liquid pipeline safety, integrity management, and damage prevention. RSPA will focus its efforts on short-term to mid-term research and development projects that will quickly bring results to industry and the market. In addition, RSPA will lead the Participating Agencies in preparing and transmitting the five-year program plan to Congress. RSPA will carry out this responsibility through its Office of Pipeline Safety (OPS).
2. DOE has the lead role in pipeline facility research, development, demonstration, and standardization as it pertains to pipeline reliability, deliverability, and surveillance. DOE will focus its research efforts on advanced and innovative, mid-term to long-term research and development on the next generation of infrastructure technologies.
3. NIST has the lead role in pipeline materials research, development, and demonstration, and will serve as liaison with private sector consensus standards organizations, as this pipeline materials work pertains to natural gas and hazardous liquid pipeline safety, reliability, and damage prevention. In addition, NIST has a major program in fire safety research related to pipelines.

C. Program Plan

1. The Act requires the Secretary of Transportation, in coordination with the Secretary of Energy and the Director of NIST, to prepare and transmit to Congress a five-year program plan not later than December 17, 2003. The program plan will guide program activities based on this MOU and take into account the related activities of other Federal agencies, including the U.S. Department of the Interior's Minerals Management Service. The program plan will be submitted to RSPA's Technical Pipeline Safety Standards Committee and Technical Hazardous Liquid Pipeline Safety Standards Committee for review and will include the comments of the Committees.
2. In preparing the program plan and establishing project priorities, the Secretary of Transportation will consult with appropriate representatives of the pipeline industry, utilities, manufacturers, academia, other Federal agencies, pipeline research institutes, national laboratories, State pipeline

safety officials, labor organizations, environmental organizations, pipeline safety advocates, and professional and technical societies.

D. Annual Reports to Congress: Not later than December 17, 2003 (one year after enactment of the Act), and annually thereafter, the Participating Agencies will prepare and jointly transmit to Congress a report on the status and results to date of the implementation of the program plan.

E. Coordination and Collaboration

1. The Participating Agencies agree to coordinate research, development, demonstration, and standardization activities in order to achieve an optimal division of labor and resources. This coordination may include:
 - Preparation and early review of planned solicitations and competitive or sole-source announcements;
 - Participation in reviewing research white papers and full proposals received by a Participating Agency;
 - Consultation on schedules for the solicitation of research projects;
 - Exchange of technical information;
 - Participation in workshops or technical sessions held by any of the Participating Agencies, academia, research institutes or organizations, other government agencies, or other entities involved in pipeline research, development, demonstration, or standardization;
 - Joint conduct of workshops or technical sessions;
 - Dissemination of technological solutions identified through research, development, and demonstration projects;
 - Consultation on standardization issues;
 - Exchange visits of individuals sponsored by the Participating Agencies; and
 - Review of research findings of international organizations involved in pipeline safety, integrity, and reliability research.
2. The Participating Agencies agree to disseminate, in accordance with applicable law, the technological solutions identified through research, development, and demonstration projects conducted to advance the safety, integrity, and reliability of the natural gas and hazardous liquid pipeline infrastructure. This may include dissemination through workshops, technical sessions, conferences, press releases, websites, or standards. This also may include the development of public abstracts to clearly communicate research findings and interim results.
3. The Participating Agencies agree to work together on the development and application of performance measures to evaluate research effectiveness of pipeline facility research, development, and demonstration projects. This

may include a requirement that those who respond to solicitations include measures of project effectiveness as part of the proposal.

V. GENERAL PROVISIONS

- A. Program Funding. Nothing in this MOU obligates the Participating Agencies to request a certain budget level, request appropriations, expend appropriations, enter into any contract or other obligation, or impose specific programming obligations on any party. All provisions in this MOU are subject to the availability of funds.
- B. Amendment. This MOU may be amended by written agreement among the Participating Agencies.
- C. Rights and Benefits. Nothing in this MOU is intended to diminish or otherwise affect the authority of any Participating Agency to carry out its statutory, regulatory, or other official functions rights and responsibilities, nor is it intended to create any right or benefit, substantive or procedural, enforceable at law by any party against the United States, its agencies or officers, or any other person.

VI. AGENCY CONTACTS

The Participating Agencies designate the following principal contacts for each agency. These contacts may be changed at the discretion of the Participating Agency upon notice to the other Participating Agencies.

Department of Transportation

Samuel G. Banasso
Administrator, Research and Special Programs Administration
DOT/RSPA/OPS
400 Seventh Street SW, Room 7128
Washington, DC 20590
Samuel.Babansso@repa.dot.gov
202-366-1189
[fax]

Department of Energy

James A. Slutz
Deputy Assistant Secretary, Office of Natural Gas
And Petroleum Technology
1000 Independence Avenue, S.W.
Washington, DC 20585
James.slutz@hg.doe.gov
202-586-5600
202-586-6221

National Institute of Standards and Technology

[name]
[title]
[address]
[e-mail]
[phone]
[fax]

VII. DURATION OF THE MOU AND AUTHORITY OF SIGNATORIES

This MOU is effective from the date of final signature of the Participating Agencies, and remains in effect for five (5) years, unless extended or terminated by a Participating Agency upon sixty (60) days written notice to the other Participating Agencies. Each of the signatories to this MOU has been authorized to sign the MOU on behalf of his respective Participating Agency.

_____ Samuel G. Bonasso Administrator, Research and Special Programs Administration U.S. Department of Transportation	_____ Date
--	---------------

Carl Michael Smith
Assistant Secretary, Office of Fossil Energy
U.S. Department of Energy

Date

[name]
[title]
National Institute for Standards and Technology

Date

**Department of Energy**

Washington, DC 20585

November 6, 2003

ES03-013983

MEMORANDUM FOR THE SECRETARY

THRU: Joseph McMonigle
Chief of Staff

Robert G. Card 
Under Secretary for Energy, Environment, and Science

FROM: Carl Michael Smith 
Assistant Secretary, Office of Fossil Energy

SUBJECT: **ACTION:** Approve draft interagency memorandum of understanding (MOU) concerning pipeline integrity, and authorize related signatory authority.

ISSUE: The President signed the Pipeline Safety Improvement Act of 2002 (Public Law 107-355) on December 17, 2002. Section 12 of the Act requires the Secretary of Energy, the Secretary of Transportation, and the Director of the National Institute of Standards and Technology to: (1) carry out a coordinated research, development, demonstration, and standardization program to ensure the integrity of the Nation's aging pipeline facilities; (2) enter into a MOU detailing their respective responsibilities in this program no later than 120 days after enactment; (3) prepare and transmit to Congress no later than 1 year after enactment a 5-year program plan to guide activities under this section; and (4) prepare and submit a program status report annually thereafter. The Act also authorizes appropriations to the 3 agencies to carry out this section for each of the fiscal years 2003 through 2006.

The attached draft MOU identifies program elements, as well as specific areas of agency expertise, and the required preparation and transmission to Congress of the 5-year program plan and annual status reports. The draft MOU also establishes a framework for agency coordination and collaboration.

SENSITIVITIES: The Department of Transportation (DOT) has designated as its signatory the Administrator of DOT's Research and Special Programs Administration (RSPA).



Although the 120-day statutory deadline for the MOU has passed, DOT's Office of Pipeline Safety (OPS) would like to execute the MOU as soon as possible. OPS has started work on the 5-year program plan, which is to be based on the MOU, in order to meet the related 1-year deadline.

POLICY IMPACT: The Administration's May 2001 National Energy Policy report concluded that recent energy transmission system failures highlight the need to develop technologies and policies that protect the safety of the Nation's energy infrastructure, and emphasized the important role of the Federal Government in that effort.

The Department of Energy (DOE) invests in delivery reliability research while OPS sponsor's safety research. OPS research is funded from industry user fees and DOE research is funded through Congressional appropriations. The Administration proposed no new DOE funding for this activity in FY 2003 and FY 2004. However, Congress appropriated \$8,991,000 in FY 2003. The FY 2004 House and Senate appropriation markups propose \$7 million for DOE's delivery reliability research program.

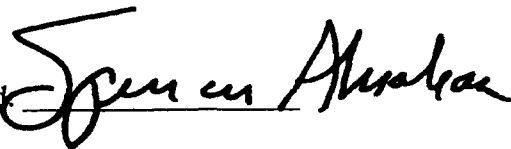
RECOMMENDATION: That you (1) approve the attached draft MOU, and (2) by approving the draft MOU and signing this memorandum, authorize the Assistant Secretary for Fossil Energy to sign the MOU.

Attachment

cc: Deputy Secretary

CONCURRENCE: General Counsel/DHill for GC-1/10/29/2003 as marked

Approved: _____



Disapproved: _____

Date: 12/3/03

**MEMORANDUM OF UNDERSTANDING
AMONG

THE DEPARTMENT OF ENERGY

AND

THE DEPARTMENT OF DEFENSE

AND

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AND

THE FEDERAL AVIATION ADMINISTRATION

FOR

THE COOPERATIVE RESEARCH, DEVELOPMENT, AND DEMONSTRATION OF
PROPULSION AND POWER SYSTEMS TECHNOLOGIES**

I. PURPOSE

This Memorandum of Understanding (MOU) establishes a framework for the cooperative research, development, and demonstration of propulsion and power systems technologies among the Department of Energy (DOE), Department of Defense (DoD), National Aeronautics and Space Administration (NASA) and Federal Aviation Administration (FAA), hereinafter referred to individually as a PARTY (or collectively as the "PARTIES"). The principal implementing organizations for the PARTIES include, but are not limited to, DOE National Energy Technology Laboratory (NETL); DoD Office of the Deputy Under Secretary of Defense (Science and Technology) [ODUSD(S&T)] and relevant Army, Navy, and Air Force laboratories; NASA Glenn Research Center, and the FAA Office of Aviation Research (AAR).

The PARTIES believe that implementation of this MOU will contribute to more cost-effective technology development, mitigate duplication, and enhance technology readiness across a broad spectrum of civil and military applications. The PARTIES further believe that successful coordination and collaboration will result in more capable propulsion and power products, leading to improved military and civil aircraft systems, ground power systems, energy conservation, and environmental security for the U.S. as a whole.

II. BACKGROUND

Traditionally, DOE, DoD, NASA and FAA have separately developed and demonstrated new technologies for enhancing the operating safety, performance, affordability, and environmental compatibility of propulsion and power generation systems. In August 1999, the PARTIES (except the FAA which joined in 2001) agreed to improve coordination and collaboration in the areas related to propulsion and power systems, in anticipation that this would lead to greater national cooperation among the participants and stakeholders, and more effective leveraging of program funding. The efforts of this alliance have led to more fully coordinated and integrated DOE/DoD/NASA/FAA program plans that achieve individual organizational goals and objectives, while maximizing investment synergy in areas of common need or interest. It will also lead to the broader application and more rapid transition of advanced propulsion and power generation technologies. However, it was recognized that an MOU was needed to provide an overarching framework to enable the participating agencies to enter into subordinate agreements in areas of mutual interest and benefit.

III. AGREEMENT

This MOU is intended to encourage and enable new agreements, as well as highlight and reinforce the activities already underway among government organizations, national laboratories, industry, academic participants and other stakeholders. Several inter-agency workshops have identified technology areas where collaboration among DOE, DoD, NASA and FAA offers the potential for substantial improvements. Such areas include, but are not limited to:

1. Turbine engines;
2. Air breathing high-speed propulsion;
3. Air breathing combined cycle systems;
4. Fuel cell power systems; and
5. Fuels.

Subordinate projects and collaborations will be identified through discussions and separate agreements among the organizations participating in this MOU. Each of these agreements will identify, at a minimum, objectives, areas of responsibility, activity timelines, and points of contact.

This MOU broadly states the intentions of the PARTIES to identify and, where appropriate, support collaborative technology activities, and does not bind the PARTIES. The MOU does not create legal rights or obligations for any PARTY, and any PARTY may withdraw, without penalty. This MOU may be modified by mutual agreement of all PARTIES, including changes in the membership. Collaboration under this MOU will be in accordance with applicable statutes and regulations governing the undersigned organizations.

IV. AUTHORITY

- DOE - This MOU is entered into on behalf of DOE under the authority of the Department of Energy Organization Act, Public Law 95-91, as amended, 42 U.S.C. § 7101 et seq.
- DoD - This MOU is entered into on behalf of DoD under the authority of the Secretary of Defense.
- NASA - This MOU is entered into on behalf of NASA under the authority of Section 203 (c) of the National Aeronautics and Space Act of 1958, as amended, 42 U.S.C. §2473 (c).
- FAA- This MOU is entered into by FAA pursuant to 49 U.S.C. § 106(l)(6) and (m).

Nothing in this MOU is intended to conflict with current law or the regulations or directives of DOE, DoD, NASA or FAA.

V. RESOURCES

Unless otherwise agreed, the PARTIES shall independently bear the costs they separately incur for performing, managing, and administering their activities under this MOU. These costs include salaries, travel, and per diem for project personnel, as well as any contract costs. Any transfer of funds between the PARTIES must be supported by subsequent agreements and appropriate fiscal documents, including Economy Act orders pursuant to 31 U.S.C. §1535, where applicable.

VI. MODIFICATION

This MOU may be modified at any time upon the mutual written consent of the PARTIES. Modifications must be signed by the original signatories to the agreement, or their designees or successors. No oral statement by any person shall be interpreted as modifying or otherwise affecting the terms of this MOU.

VII. TERMINATION

Any PARTY may terminate its involvement at any time, with or without cause, and without incurring any liability or obligation, by giving the other PARTIES at least 30 days prior written notice of termination.

VIII DATA RELEASE

Any public information released concerning the activities related to this MOU shall describe the contribution of all PARTIES to the activity. This does not apply to reports or records released pursuant to the Freedom of Information Act, 5 U.S.C. §552, or other applicable law or regulation.

Each PARTY's classified and proprietary material will be appropriately labeled and treated in accordance with its pertinent rules, policies, instructions, and regulations.

IX. PERIOD OF PERFORMANCE

This MOU shall be effective when signed by all the approving officials appearing below and shall remain in effect unless terminated upon written request of any PARTY, pursuant to Section VII.

This MOU expires on September 30, 2010. However, this MOU can be extended by mutual agreement of the PARTIES.

X. ANTI-DEFICIENCY ACT

This MOU is not a funding document, and does not represent the obligation or transfer of funds. All activities pursuant to this MOU are subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. §1341.

XI. EFFECTIVE DATE

This agreement will take effect upon the date of the last signature appearing below.

This MOU for Cooperative Research, Development and Demonstration of Propulsion and Power Systems technology is executed in quadruplicate on the dates indicated below:

By:  _____

Date: 4/13/04

Robert G. Card
Under Secretary of Energy for Science and
Environment
U.S. Department of Energy

By: _____

Date:

Dr. Ronald M. Sega
Director, Defense Research and Engineering
Department of Defense

By: _____

Date:

Jeremiah F. Creedon
Associate Administrator,
Office of Aerospace Technology
National Aeronautics and Space Administration

By: _____

Date:

Charles Keegan
Associate Administrator for Research and Acquisitions
Federal Aviation Administration
Department of Transportation

MEMORANDUM OF UNDERSTANDING
RELATED TO THE LICENSING OF DEEPWATER PORTS
AMONG THE
U.S. DEPARTMENT OF COMMERCE
U.S. DEPARTMENT OF DEFENSE
U.S. DEPARTMENT OF ENERGY
U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. DEPARTMENT OF THE INTERIOR
U.S. DEPARTMENT OF STATE
U.S. DEPARTMENT OF TRANSPORTATION
U.S. ENVIRONMENTAL PROTECTION AGENCY
FEDERAL ENERGY REGULATORY COMMISSION
COUNCIL ON ENVIRONMENTAL QUALITY

I. Purpose:

The Purpose of this Memorandum of Understanding (MOU) is to establish a framework for cooperation among the Participating Agencies with responsibilities related to the licensing of deepwater ports pursuant to the Deepwater Port Act of 1974, as amended (DPA).

This Agreement emphasizes the importance for the lead agencies, the U.S. Coast Guard (USCG) and Maritime Administration (MARAD), on behalf of the Secretary of the Department of Homeland Security (DHS) and the Secretary of the Department of Transportation (DOT), respectively, to receive specific information from the other Participating Agencies at key stages of project development to foster an efficient procedure to develop documentation that will meet the statutory requirements of all affected agencies. Specifically, the intent of this MOU is to establish a process to facilitate the timely processing of deepwater port applications, whereby participating agencies will:

- Work together with applicants and other stakeholders, as appropriate, both before and after complete applications for the necessary authorizations or permits are filed;
- Identify and resolve any issues as quickly as possible;
- Attempt to build a consensus among governmental agencies; and
- Expedite the environmental review required for licensing decisions associated with deepwater ports.

II. Background:

Executive Order (EO) 13212 ("Actions to Expedite Energy-Related Projects") signed by President Bush on May 18, 2001 (66 FR 28357), sets forth Administration policy that executive departments and agencies must take appropriate actions, to the extent consistent with applicable law, to expedite projects that will increase the production, transmission, or conservation of energy. EO 13212 directs agencies to expedite their reviews of authorizations for energy-related projects and to take other action necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protection.

EO 13212 applies to the licensing of deepwater ports under the Deepwater Port Act of 1974 (DPA, 33 U.S.C. 1501, *et seq.*). The Maritime Transportation Security Act of 2002 (P.L. 107-295) amended the DPA in November, 2002 to extend the definition of deepwater ports to cover natural gas, including liquefied natural gas (LNG), facilities. The Secretary of DHS and the Secretary of DOT delegated the processing of deepwater port applications to the USCG and MARAD, respectively. The DPA establishes a specific time frame of 330 days from the date of publication of a Federal Register notice of a "complete" application to the date of approval or denial of a deepwater port license. The USCG and MARAD, in cooperation with other Federal agencies, must comply with the requirements of the National Environmental Policy Act (NEPA, 42 U.S.C. 4332) within that time frame. Pursuant to § 5(f) of the DPA, Congress anticipates that such compliance will fulfill the requirements of all Federal agencies in carrying out their NEPA responsibilities pursuant to the DPA.

The DPA allows for the licensing of deepwater ports in the Exclusive Economic Zone along all maritime coasts of the US. A variety of energy corporations have submitted applications or have announced their intentions to apply for deepwater port licenses, primarily for LNG.

Consistent with EO 13212 and the cooperation necessitated by the DPA, the Participating Agencies enter into this MOU to expedite actions on pending and future applications for licensing deepwater ports.

III. Participating Agencies:

The agencies with regulatory responsibilities relevant to deepwater ports in the OCS that are participating in this MOU are:

U.S. DEPARTMENT OF COMMERCE (DOC)
National Oceanic and Atmospheric Administration (NOAA)
National Marine Fisheries Service (NOAA Fisheries)
National Ocean Service (NOS)
U.S. DEPARTMENT OF DEFENSE (DOD)
(Installations and Environment) Utilities and Energy
Secretary of the Army, U.S. Army Corps of Engineers (COE)
U.S. DEPARTMENT OF ENERGY (DOE)
Office of Fossil Energy
U.S. DEPARTMENT OF HOMELAND SECURITY (DHS)
U.S. Coast Guard (USCG)
U.S. DEPARTMENT OF THE INTERIOR (DOI)
Minerals Management Service (MMS)
U.S. Fish and Wildlife Service (FWS)
U.S. DEPARTMENT OF STATE (DOS)
U.S. DEPARTMENT OF TRANSPORTATION (DOT)
Maritime Administration (MARAD)
Research and Special Programs Administration (RSPA)

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
FEDERAL ENERGY REGULATORY COMMISSION (FERC)
COUNCIL ON ENVIRONMENTAL QUALITY (CEQ)

NOAA Fisheries, within DOC, is responsible for a variety of activities in marine and coastal ecosystems as mandated by several statutes and authorities. These activities include managing protected species, managing commercial and recreational fisheries, and protecting marine and coastal habitats. These activities are conducted pursuant to a number of environmental laws including the Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Magnuson-Stevens Fishery Conservation and Management Act, and the Fish and Wildlife Coordination Act (FWCA). Deepwater port construction and operation in coastal and/or ocean areas may overlap with several NOAA responsibilities depending on the location and type of project proposed. Federal agencies authorizing activities that may affect any of these resources are required to consult with NOAA Fisheries regarding adverse affects to these resources and habitats upon which they depend.

The NOS, also within DOC's NOAA, is responsible for various coastal and ocean programs that may be relevant to deepwater ports. NOS administers the Coastal Zone Management Act (CZMA) and approves and works with states to implement comprehensive Coastal Management Programs and National Estuarine Research Reserves and mediates disputes regarding CZMA issues. Under CZMA section 307(c)(3)(A), applicable states must concur with consistency certifications submitted with deepwater port applications before Federal agencies can issue their approvals. NOS also manages designated National Marine Sanctuaries (NMS) and coastal protection and restoration activities. While oil and gas activities are mostly prohibited within NMS, pursuant to Section 304(d) of the National Marine Sanctuaries Act, Federal actions near NMS may require consultation with the Secretary of Commerce. NOS also may be able to provide technical assistance related to nautical charts, coastal observing stations, GIS capabilities, and tide and current information.

The DOD, through the Office of the Deputy Under Secretary of Defense (Installations and Environment) Utilities and Energy Use Directorate, will coordinate deepwater port license applications through the appropriate Defense Department offices having jurisdiction. DOD officials will review the applications for determination of impact on the Department's activities. DOD will notify Participating Agencies of any areas of concern and participate in any necessary discussions to adequately address DOD issues related to the proposed project.

The COE is responsible for the administration of laws for the protection and preservation of waters of the United States, including wetlands. Pursuant to the requirements of section 10 of the Rivers and Harbors Act of 1899, and section 404 of the Federal Water Pollution Control Act (FWPCA; also known as the Clean Water Act), the COE may issue authorizations for the discharge of dredged or fill material into navigable waters, including wetlands.

The DOE is charged with developing and coordinating national energy policy. In addition, DOE regulates the commodity import and export of natural gas, including LNG, under section 3 of the Natural Gas Act (NGA, 15 U.S.C. § 717(b)).

The USCG has been delegated the responsibility from the Secretary of DHS¹ and MARAD has been delegated authority from the Secretary of DOT to approve or deny any application for a deepwater port submitted pursuant to the DPA. In general, the USCG is the lead agency for compliance with NEPA and is responsible for matters related to navigation safety, engineering and safety standards, and facility inspections. MARAD is responsible for determining financial capability of the potential licensees, citizenship, and is responsible for preparing the project record of decision and issuing or denying the license. The various other responsibilities under the DPA, including the duty of consultation, are shared by USCG and MARAD.

The MMS, within DOI, is responsible for issuing and enforcing regulations to promote safe operations, environmental protection, and resource conservation for all mineral exploration, development, and production activities located in the OCS. In this role, MMS administers leasing and minerals royalty programs, oversees facility permitting, conducts NEPA analysis (e.g. air quality, archeology, biological impacts, socio-economic impacts, etc.), grants pipeline rights-of-way through submerged portions of the OCS, performs facility inspections (including safety related items as authorized by the USCG), maintains databases of facility (fixed, floating, and submerged) locations and attribute data, approves oil spill response plans, administers an operator bonding program, and engages in appropriate engineering and oil spill research.

Under the DPA, as amended, the Secretary of the Interior is also responsible for determining the fair market rental value of the "...subsoil and seabed of the Outer Continental Shelf of the United States to be utilized by the deepwater port, including the fair market rental value of the right-of-way necessary for the pipeline segment of the port located on such subsoil and seabed."

The FWS, within DOI, is responsible for the conservation, protection and enhancement of fish, wildlife, plants and their habitats. Pursuant to a number of environmental laws, including the ESA, MMPA, Migratory Bird Treaty Act, the FWCA, and the Coastal Barrier Resources Act FWS has principal trust responsibility for protecting and conserving migratory birds, certain threatened and endangered species, certain marine mammals, interjurisdictional fish, and certain coastal habitats. FWS manages the National Wildlife Refuge System (NWRS). Applicants for Federal licenses are required to consult with the FWS on projects potentially affecting any of these resources. The FWS also consults on projects potentially affecting fresh water or marine resources and water quality. In addition, the FWS may authorize use by permit for areas within the NWRS.

¹ The DPA provides authority to the Secretary of DOT to issue, amend, transfer or reinstate a license for ownership, construction or operation of a deepwater port. The Secretary of DOT delegated, in 49 C.F.R. § 1.46(s), to the Commandant of the USCG authority to process (in coordination with the Maritime Administration) applications for licenses under the DPA. Sections 888 and 1512 (d) of the Homeland Security Act of 2002 effectuate transfer of authority for USCG authorities and functions from the Secretary of DOT to the Secretary of DHS.

The DOS is responsible for providing its views on the adequacy of any deepwater port license application, and its effects on programs within its jurisdiction.

The RSPA, has been delegated authority from the Secretary of Transportation under the DPA to exercise powers and perform duties relating to the establishment, enforcement and review of regulations concerning the safe construction, operation or maintenance of deepwater port pipelines on Federal lands and the OCS. In addition, RSPA establishes Federal Safety Standards for siting, design, construction, equipment, and fire protection and emergency security plans for LNG facilities under 49 CFR Part 193.

The EPA is responsible for administering a wide variety of environmental laws. The responsibilities of EPA relevant to licensing of deepwater ports are primarily associated with assuring such deepwater ports conform with all applicable provisions of the Clean Air Act (CAA), as amended; the FWPCA, as amended; and the Marine Protection, Research, and Sanctuaries Act, as amended. EPA provides such assurance through communication with USCG and MARAD and through independent issuance of the permits that those laws require. If within 45 days of the last public hearing on a proposed license for a designated application area (DPA § 4(c)(6)), the EPA Administrator informs the Secretary of Transportation that the deepwater port will not conform to all applicable statutory and regulatory requirements under these statutes, the Secretary may not issue the license. In addition, under section 309 of the CAA, EPA publicly evaluates the completeness and adequacy of environmental impact statements (EISs) prepared by other Federal agencies and, if it finds a proposed project environmentally unsatisfactory from the standpoint of public health or welfare, or environmental quality, refers the matter to CEQ. Based on this NEPA oversight authority, EPA may refer an Environmental Assessment (EA)/Finding of No Significant Impact (FNSI) to CEQ if the underlying action requires an EIS or is unsatisfactory from the standpoint of public health or welfare, or environmental quality.

The FERC is responsible for authorizing the construction and operation of interstate natural gas pipelines. It issues certificates of public convenience and necessity for such pipelines under section 7 of the NGA and authorizes the construction and siting of facilities for the import or export of natural gas under section 3 of the NGA, including onshore LNG facilities. For natural gas deepwater ports, FERC will retain jurisdiction over any third-party offshore facilities connecting the deepwater port to shore as well as any facilities to the landward side of the high water mark.

The CEQ was established within the Executive Office of the President in 1969 by NEPA. Its purpose is to formulate and recommend national policies to promote the improvement of the quality of the environment. CEQ has issued regulations (40 C.F.R. Parts 1500 through 1508) applicable to Federal agencies implementing NEPA.

IV. Responsibilities of Participating Agencies:

The Participating Agencies hereby agree to work with each other, and with other entities as appropriate, to ensure that timely decisions are made and that the responsibilities of each agency are met. Specifically, each Participating Agency agrees to:

A. Commit to Early Involvement by:

1. Assessing its potential role in the environmental review of deepwater port licenses, as soon as practicable, after a prospective applicant, an applicant, or a Participating Agency makes a request for involvement in connection with a project under development. If a Participating Agency determines it has a role, it will:
 - a. Identify agency contacts for the proposed project. If a prospective applicant, an applicant, or Participating Agency needs assistance in determining regional, local or project specific contacts, the initial agency contacts will assist in identifying those contacts. The initial agency contacts for each Participating Agency for the purposes of this MOU are identified in Attachment A.
 - b. Meet with prospective applicants, applicants, other Participating Agencies, or the lead agencies when requested by the prospective applicant, applicant, a Participating Agency, or the lead agencies, or at its own initiative, to identify areas of potential concern and to assess the need for and availability of agency resources to address issues related to the proposed project.
 - c. Identify environmental issues and concerns related to the proposed project that need to be addressed in order for the lead agency to meet its obligations.
2. Conducting an early initial review of the deepwater port applications for completeness and accuracy and providing the USCG and MARAD with findings to assist in their "completeness" determination process, keeping in mind that the USCG and MARAD have 21 days from receipt of an application to determine whether or not it is complete. USCG and MARAD will notify Participating Agencies immediately upon receipt of an application for a deepwater port license and require applicants to provide Participating Agencies with either a hard copy or access to an electronic copy of each application as soon as possible (see section IV(3)(c) of this MOU). The Participating Agencies will be allowed at least five working days from the receipt of the appropriate number of copies of the application in order to complete requisite reviews and to provide the USCG and MARAD with recommendations as to the need for any additional information necessary for the agency to evaluate the application's impacts upon the agency's programs and areas of responsibility.
3. Conferring with the USCG and MARAD in establishing schedules. The USCG and MARAD will notify the other Participating Agencies as early as possible of actions in pending license application proceedings, including meetings with potential applicants. The USCG and MARAD will then establish a schedule for the project review process, including key times for consultation. Such schedule will be as expeditious as possible and consistent with the periods for analysis and response that are required by the

statutes and regulations applicable to the proposed project. The Participating Agencies will strive to ensure that individual permitting processes and related permit review activities occur on a concurrent, rather than sequential, basis with the objective of avoiding unnecessary delays in the process and the schedule established by USCG and MARAD. If at any point during the consultation process a Participating Agency anticipates an inability to comply with the agreed-upon schedule, it will communicate the reason for this inability as soon as possible to USCG and MARAD. USCG and MARAD will then work with that agency to minimize the anticipated delay.

- a. In light of their DPA application processing and licensing responsibilities, USCG and MARAD will be the lead agencies for NEPA compliance for deepwater port applications. Participating Agencies may use this MOU as a cooperating agency agreement (CAA) with the lead agencies for the purpose of NEPA compliance or may enter into a supplemental CAA, which would augment this MOU.
- b. Under the DPA the USCG and MARAD will require prospective applicants to establish and maintain an electronic web-based repository in which all filings by the applicants for authorizations, including filings with local, state and Federal agencies, are made available to all Participating Agencies involved in their project. Some equivalent means of ensuring access to documents by Participating Agencies, such as the current Docket Management System used by DOT, may be used as a repository. The USCG and MARAD will use best efforts to ensure that the prospective applicants make each document available in the repository within 3 days after the document is filed. The repository also should include orders, requests and other pertinent documents. The applicant(s) will pay the cost of the repository.
- c. Under the DPA the USCG and MARAD will require applicants to submit hard copies of all application materials, and, where possible, copies on a compact disk (CD), to agencies participating in the review process, ensuring that sufficient copies are distributed to both headquarters and field offices. All hard and CD copies will be at the expense of the applicant. The USCG and MARAD will use best efforts to ensure that the applicants provide copies to the Participating Agencies within 3 days of submitting the application materials to the USCG or MARAD.
- d. Through their contracts, the USCG and MARAD will require NEPA contractors to submit all interim and draft NEPA documents in hard copy and on CD to both headquarters and field offices of appropriate Participating Agencies to assist in expeditious review of materials. All hard and CD copies of the NEPA documents will be at the expense of the applicant.
- e. The USCG and MARAD will include in any Notice of Intent to Prepare an EIS or EA an announcement to the public regarding the process set forth in this MOU.
- f. To facilitate participation, the USCG and MARAD will notify Participating Agencies of scoping meetings and public hearings as soon as possible after the meeting or hearing is scheduled and provide copies of scoping reports to the

Participating Agencies as soon as possible.

B. Share Data. The Participating Agencies will share the information gathered, considered and relied upon by each of them. Specifically, the Participating Agencies agree to:

1. Subject to confidentiality requirements and exemptions from disclosure under the Freedom of Information Act, provide to the prospective applicant, applicant, and/or lead agencies, relevant studies, data (such as maps showing features over which the agency may have jurisdiction), and any other information concerning the status of matters the agency considers relevant (including matters that may be under consideration, such as proposing a species for listing as endangered or threatened, or proposing an area as a National Marine Sanctuary).
2. Cooperate in the preparation of requests for additional studies or data, avoid duplicative requests, and compile a consistent set of information on which all Participating Agencies will rely.
3. Cooperate in identifying and developing information at the level of detail required to complete environmental and cultural resources project review.
4. Cooperate in developing alternative pipeline routes, safety zones, anchorage areas, vessel recommended routes, port locations, and/or other actions.
5. Cooperate in developing mitigation measures that will be conditions of approval of the project. MARAD will (consider) make every effort to ensure that conditions of approval and/or project mitigations developed by Participating Agencies and provided to the Coast Guard and MARAD during NEPA proceedings and application engineering and operations reviews are considered in the development of the licensing document prepared by MARAD.

C. Communicate Informally. The Participating Agencies agree to communicate informally with the lead agencies early and throughout the process to ensure that issues are raised as soon as possible and shared among all agencies. The lead agencies will coordinate and share information with and among other Participating Agencies.

D. Resolve Disputes. Disputes regarding existing statutory requirements will be resolved by the relevant Participating Agencies using existing dispute resolution methods and in accordance with existing statutory authorities. With respect to disputes regarding the procedures set forth in this MOU, the Participating Agencies will confer informally with the CEQ, or its designee. If a Participating Agency identifies such a dispute with the procedures of the MOU, it will notify all other Participating Agencies and make every attempt to resolve the issue.

If the dispute is not resolved within thirty (30) days of the notification of the dispute:

1. Any of the Participating Agencies involved in the dispute may forward the matter to the CEQ, or its designee.
2. The CEQ, or its designee, will make a written recommendation on resolution of the dispute within thirty (30) days of receiving the documentation from Participating Agencies, unless there is an agreement among all relevant Participating Agencies that the period should be extended for a particular reason.
3. Recommendations received from the CEQ, or its designee, will be taken into account by the lead agency in consultation with the relevant Participating Agencies, in a manner consistent with applicable law, when determining further actions regarding the subject of the dispute. Any recommendation not accepted by the lead or Participating Agencies will have to be fully explained in writing to the Chairman of the CEQ.
4. This opportunity to consult with the CEQ, or its designee, will be separate and apart from the opportunity to do so provided for in the CEQ's regulations at 40 C.F.R. Part 1504.

V. General Provisions:

- A. This MOU cannot be used to obligate or commit funds or as the basis for the transfer of funds. All provisions in this MOU are subject to the availability of funds.
- B. This MOU does not supersede existing agreements among any of the signatories.
- C. This MOU may be modified or amended upon written request of any Participating Agency hereto and the subsequent written concurrence of all of the Participating Agencies. Participation in this MOU may be terminated sixty (60) days after a Participating Agency provides written notice of such termination to the other Participating Agencies.
- D. This MOU is intended only to improve the cooperation among the Participating Agencies to expedite decisions on deepwater ports. It is not intended to, nor does it, create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by any person or party against the United States, its agencies, its officers, or any other person. This MOU is not intended to direct or bind any person outside the Participating Agencies.
- E. This MOU neither expands nor is in derogation of those powers and authorities vested in the Participating Agencies by applicable law.
- F. This MOU does not affect any guidelines related to information quality issued by the Participating Agencies in connection with section 515 of the Treasury and General Government Appropriations Act for FY 2001 (P.L. 106-554). Information disseminated pursuant to this MOU will be subject to the information quality guidelines of the Participating Agency that disseminates the information and the process by which requests

for correction of such information will be addressed will be that established by the agency that disseminated the information.

G. This MOU is solely for the purpose of establishing internal procedures for Federal agencies to consider and deal with the various environmental responsibilities in the context of applications submitted pursuant the DPA, and nothing in this MOU shall be construed to create a cause of action.

VI. Principal Contacts:

The Participating Agencies designate agency contacts identified in Attachment A. These contacts may be changed at the Participating Agency's discretion upon notice to the other Participating Agencies.

VII. Effective Date and Duration:

This MOU is effective upon the date of the last signatory and will expire five years from that date unless extended or terminated earlier by mutual agreement of the Participating Agencies.

Samuel W. Bodman
Deputy Secretary
Department of Commerce

Date

Raymond DuBois
Deputy Undersecretary (Installations and Environment)
Department of Defense

Date

John Paul Woodley, Jr.
Assistant Secretary of the Army (Civil Works)
Department of Defense

Date

MOU: Licensing of Deepwater Ports

Robert Card
Under Secretary
Department of Energy

Date

Admiral Thomas H. Collins
Commandant, United States Coast Guard
Department of Homeland Security

Date

Stephen J. Griles
Deputy Secretary
Department of the Interior

Date

Department of State

Date

Jeffrey Shane
Under Secretary for Policy
Department of Transportation

Date

MOU: Licensing of Deepwater Ports

Stephen L. Johnson
Acting Deputy Administrator
Environmental Protection Agency

Date

Patrick Wood, III
Chair
Federal Energy Regulatory Commission

Date

James L. Connaughton
Chair
Council on Environmental Quality

Date



Department of Energy
Washington, DC 20585

January 15, 2004

**MEMORANDUM FOR UNDER SECRETARY FOR ENERGY, SCIENCE AND
ENVIRONMENT**

FROM:

Carl Michael Smith
Assistant Secretary, Office of Fossil Energy

A handwritten signature of Carl Michael Smith in black ink, written over the typed name and title.

SUBJECT:

ACTION: Sign the attached Memorandum of Understanding (MOU) on Deepwater Port License Application Review.

ISSUE:

The attached MOU on Deepwater Port License Application Review developed among relevant Federal agencies that may have a role in application review. This MOU establishes the framework for cooperation among the participating agencies and should streamline the review of deepwater port license applications. This MOU is being coordinated by the White House Task Force on Energy Project Streamlining.

There has been an Interagency group involved in the drafting and review of this MOU. DOE has participated through the Office of Fossil Energy. In addition to DOE's national energy policy charge, the Office of Fossil Energy regulates the commodity import and export of natural gas, including LNG, under section 3 of the Natural Gas Act. This MOU will place no additional burden on the Office of Fossil Energy or DOE.

SENSITIVITIES: None

POLICY IMPACT: None

RECOMMENDATION: Sign and return the MOU to the White House Task Force on Energy Project Streamlining.

ATTACHMENT

CONCURRENCES:



MEMORANDUM OF UNDERSTANDING ON COORDINATION OF ENVIRONMENTAL REVIEWS FOR PIPELINE REPAIR PROJECTS

May 2004

The Council on Environmental Quality
The Department of Transportation
The Environmental Protection Agency
The Department of the Interior
The Department of Commerce
The Department of Defense
The Federal Energy Regulatory Commission
The Department of Agriculture
The Department of Energy
The Advisory Council on Historic Preservation

I. PURPOSE

The Pipeline Safety Improvement Act of 2002 (PSIA; P.L. 107-355) directed Federal agencies and departments having jurisdiction over the permitting of work needed for pipeline repairs to establish a coordinated and expedited pipeline repair permit review process. The process must be designed to enable pipeline operators to commence and complete all activities necessary to carry out pipeline repairs within the time periods to be established and specified by the Secretary of Transportation, pursuant to the PSIA, and in accordance with the statutory and regulatory requirements of the Participating Agencies.

Consistent with the PSIA, and in recognition of the fact that the timely repair of both natural gas and hazardous liquid pipelines is essential to facilitate the Nation's ability to meet the goal of sufficient availability and use of natural gas and liquid fuels, the Participating Agencies enter into this Memorandum of Understanding (MOU).

II. BACKGROUND

Through Executive Order 13212, issued on May 18, 2001, the President declared that it is the policy of his Administration that executive departments and agencies shall take appropriate actions, to the extent consistent with applicable law, to expedite projects that will increase the production, transmission, or conservation of energy. In that Executive Order, the President directed Federal agencies to expedite their reviews of authorizations for energy-related projects and to take other action necessary to accelerate the completion of such projects, while maintaining safety, public health and environmental protections.

The reliability and capacity of the Nation's pipeline system are key determinants of energy supply and price, particularly in certain regional markets. The nearly 200,000 miles of oil pipelines in the United States are the principal mode for transporting oil and petroleum products such as gasoline, accounting for about 66 percent of all domestic product movements. In addition, virtually all natural gas in the United States is moved via pipeline. Insufficient domestic pipeline capacity has caused peak-load problems in moving oil and petroleum products such as gasoline from one region of the country to another.

The Nation's existing pipeline infrastructure, much of which is over 50 years old, requires regular safety and environmental reviews to ensure its reliability. Following pipeline ruptures in Bellingham, Washington, in June 1999 and Carlsbad, New Mexico, in August 2000 which caused loss of life and significant property damage, Congress enacted the PSIA, which was signed into law by President Bush on December 17, 2002. The PSIA established State "one-call" notification programs, expanded State oversight of pipeline safety, improved enforcement authority of the Department of Transportation with respect to pipeline safety, and increased enforcement penalties for violation of pipeline safety regulations.

As directed by Section 14 of the PSIA, the U.S. Department of Transportation, through the Research and Special Programs Administration, amended its safety regulations and standards for the transportation of natural gas and hazardous liquids in or affecting interstate or foreign commerce. The amended safety regulations at 49 CFR Parts 192 and 195 require operators of certain pipelines to adopt Integrity Management Programs (IMP). Under the IMP regulations, operators of transmission pipelines transporting natural gas and hazardous liquids are required to assess, evaluate, repair, and validate through comprehensive analysis the integrity of pipeline segments that, in the event of a leak or rupture, could impact High Consequence Areas (HCA). The regulations define HCAs to include populated areas, areas unusually sensitive to environmental damage, and commercially navigable waterways.

The regulations also identify repair criteria or types of failures that must be repaired within specified time limits, the length of which reflects the probability of failure. For natural or other gas pipelines, two categories of repair characterization (immediate, 1 year) are defined by the type, magnitude, or orientation of the anomaly, or combination thereof. Similarly, for hazardous liquid pipelines, three categories of repair are defined (immediate, 60 days, or 180 days). For example, for hazardous liquid pipelines, a top dent with any indication of metal loss or cracking requires an immediate response and action, whereas a bottom dent with any indication of metal loss or cracking requires a response and action within 60 days. Given these criteria, pipeline operators must characterize the type of repair required (as described in the regulations), evaluate the risk of failure, and make the repair within defined time limits. These consensus criteria were developed following extensive consultation with experts in other government agencies, environmental organizations, industry, and academia, as well as with the public, through a series of public notices, workshops, and technical meetings.

In addition, recognizing the need for timely repairs of pipelines to maintain energy security, Section 16 of the PSIA directed the President to establish an Interagency Committee to implement a coordinated environmental review and permitting process to enable pipeline repairs within the time periods specified by the IMP regulations. Committee activities were to include evaluation of Federal permitting requirements, identification of best management practices (BMPs) to be used by industry, and the development of a memorandum of understanding to provide for a coordinated and expedited pipeline permit review process that includes the use of BMPs to enable pipeline repairs that would result in no more than minimal adverse effects on the environment. To implement Section 16 of the PSIA, the President issued Executive Order 13302, adding these pipeline safety functions to the charge given the Task Force authorized under Executive Order 13212.

The MOU enhances coordination of the processes through which agencies with environmental and historic preservation review responsibilities under various statutes meet those responsibilities in connection with the authorizations required to repair natural gas and hazardous liquid pipelines that have been identified by pipeline operators as in need of repair on a timely basis to protect life, health or physical property. The MOU recognizes that early planning, notice, and consultation among the pipeline operator and agencies can result in a structured process that facilitates timely decisions that can enable critical repair actions to go forward, within the context of resource conservation.

The MOU supports the development of a comprehensive, "one-stop" information system to allow pipeline operators and agencies alike access to the best available information on pipeline testing and repair schedules, agency official contact information, natural resource conservation needs, and recommendations on management practices for testing and repair. Further, the MOU recognizes that the identification and use of BMPs to avoid, reduce, or mitigate impacts to resources of concern can be one means of implementing specific measures to protect affected resources and encourage increased environmental stewardship.

III. EXISTING AUTHORITIES AND RESPONSIBILITIES

The Council on Environmental Quality (CEQ) was established within the Executive Office of the President in 1969 by act of Congress as part of the National Environmental Policy Act (NEPA). Its principal purpose is to formulate and recommend national policies to promote the improvement of the quality of the environment. CEQ has issued regulations applicable to Federal agencies implementing NEPA (40 C.F.R. Parts 1500 through 1508).

The Department of Transportation (DOT), through its Research and Special Programs Administration (RSPA), is responsible for establishing safety standards for the nation's pipeline transportation system. RSPA carries out this responsibility through its Office of Pipeline Safety (OPS). OPS establishes and enforces minimum safety standards for the design, construction, operation and maintenance of pipeline facilities pursuant to 49 U.S.C. 60101 et seq.

The Environmental Protection Agency (EPA) is responsible for administering a wide variety of environmental laws. The responsibilities of EPA relevant to the pipeline permitting process include commenting on Environmental Impact Statements (EISs) under section 309 of the Clean Air Act, participating in the Clean Water Act section 404 permit process, and issuing or reviewing authorized States' issuance of National Pollutant Discharge Elimination System permits for point source discharges of storm water from construction activities that disturb areas in excess of one acre, pursuant to section 402 of the Clean Water Act.

The Fish and Wildlife Service (FWS), within the Department of the Interior, is responsible for assisting other Federal agencies and the public in the conservation, protection, and enhancement of fish, wildlife, plants, and their habitats, pursuant to the Fish and Wildlife Coordination Act (FWCA; 16 U.S.C. 661 et seq.). The FWS has principal trust responsibility to protect and conserve migratory birds, threatened and endangered species, certain marine mammals, and inter-jurisdictional fishes. In particular, Section 7 of the Endangered Species Act of 1973, as amended (ESA, 16 U.S.C. 1531 et seq.), requires that Federal agencies insure that the actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or destroy or adversely modify their designated critical habitat. Further, the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703-712), prohibits the taking, killing, possession, and transportation of migratory birds, their eggs, parts and nests, except when specifically authorized by the Secretary of the Interior. Federal regulatory agencies and their applicants for pipeline repair projects are required to consult with the FWS on projects potentially affecting any of these resources. The FWS also consults on projects potentially affecting fresh water or marine resources and water quality. In addition, the FWS manages the National Wildlife Refuge System (NWRS), and may authorize use by permit for areas within the NWRS.

The Bureau of Land Management (BLM), within the Department of the Interior, is responsible for the management of Federal lands. The BLM is responsible for issuing right-of-way grants and permits authorizing the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined products produced therefrom, by pipelines using Federal lands. Section 28 of the Mineral Leasing Act of 1920, as amended, gives BLM the authority to issue right-of-way grants and permits for oil and gas pipelines through all lands owned by the United States, except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf.

The National Park Service (NPS), within the Department of the Interior, may issue right-of-way permits only for those uses or activities specifically authorized by Congress and only if there is no practicable alternative to such use of NPS lands. There are no general authorities for issuance of right-of-way permits for gas or other petroleum product pipelines across units of the National Park System. However, in individual instances, park-specific legislation provides for such authorization, and some NPS lands have been acquired subject to gas or other petroleum product pipelines easements. The

Organic Act (16 U.S.C. 1) and subsequent amendments (16 U.S.C. 1a) direct the NPS to manage all park lands to protect and preserve natural and cultural resources.

The Minerals Management Service (MMS), within the Department of the Interior, is responsible for issuing and enforcing regulations to promote safe operations, environmental protection, and resource conservation on the Outer Continental Shelf (OCS). The MMS is responsible for granting rights-of-way through submerged lands of the OCS. In addition, the MMS regulates pipelines under the jurisdiction of the Department of the Interior in accordance with MMS policies, practices, and requirements issued under 30 CFR Part 250, Subpart J. MMS and DOT coordinate OCS pipeline inspection and repair activities in accordance with the 1996 MMS/DOT national Memorandum of Understanding and/or other regional agreements (e.g., the "Offshore California Pipeline Inspection Survey Plan" and its implementing Memorandum of Agreement) as applicable.

The Bureau of Indian Affairs (BIA), within the Department of the Interior, is charged with the administration of Federal Indian policy and the discharge of the Federal trust for American Indian Tribes, Alaska Native villages and tribal organizations. BIA is responsible for approving rights-of-way across lands held in trust for an Indian or Indian Tribe. In addition, regarding natural gas and all rights-of-way for energy resource transport, BIA must consult and coordinate through government-to-government relations with any affected Tribe.

The National Marine Fisheries Service (NMFS), an office of the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce, is responsible for a variety of activities in marine and coastal ecosystems as mandated by several statutes and authorities. These activities include conserving threatened and endangered species, protecting marine mammals, managing commercial and recreational fisheries, and protecting marine and coastal habitats. These activities are conducted pursuant to the ESA, the Marine Mammal Protection Act (MMPA), the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and the FWCA. Federal agencies involved in pipeline repairs that have potential effects on threatened and endangered species or essential fish habitat must consult with NMFS pursuant to the ESA and the MSA. For any pipeline repair that would incidentally take a marine mammal, an authorization pursuant to the MMPA must be obtained.

The National Ocean Service (NOS), an office of the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce, administers the Coastal Zone Management Act (CZMA) and approves and works with states to implement comprehensive Coastal Management Programs and National Estuarine Research Reserves and mediates disputes regarding CZMA issues. Under CZMA section 307(c)(3)(A), applicable states must concur with consistency certifications submitted with permit applications for activities affecting any land or water use or natural resource of the coastal zone before Federal agencies can issue their approvals. NOS also manages designated National Marine Sanctuaries (NMS) and coastal protection and restoration activities. Pipeline repairs within a designated NMS will likely require a permit

(pursuant to NMS regulations at 15 CFR Part 922), and pursuant to Section 304(d) of the National Marine Sanctuaries Act, Federal actions near NMS may require consultation with the Secretary of Commerce.

The Army Corps of Engineers (COE), within the Department of Defense (DOD), is responsible for the administration of laws for the protection of waters of the United States, pursuant to section 10 of the Rivers and Harbors Act of 1899 (RHA; 33 U.S.C. 403), section 404 of the Clean Water Act of 1972, as amended (CWA; 33 U.S.C. 1344), and section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA; 33 U.S.C. 1413). The RHA authorizes all work and or structures in or affecting the course, condition, location, or capacity of navigable waters of the United States and artificial islands, installations, or other devices on the Outer Continental Shelf. The CWA authorizes the discharge of dredged or fill material into the waters of the United States, including wetlands. The MPRSA authorizes the transportation of dredged material excavated from navigable waters of the United States for the purpose of dumping it in ocean waters. It is expected that the COE may authorize most pipeline repair activities under these Acts through the use of existing nationwide permits. Where the impacts on the aquatic resources may be more than minimal either individually or cumulatively, individual permits may be warranted, and in emergency situations, as defined by the COE, emergency permits may be used as necessary. Letters of permission and/or regional general permits may be established at the local and regional level to further abbreviate the permitting process. The different permitting program requirements and conditions are set forth in 33 CFR Parts 320-330.

The Federal Energy Regulatory Commission (FERC) is responsible for authorizing the construction and operation of interstate natural gas pipelines. It issues certificates of public convenience and necessity for such pipelines under section 7 of the Natural Gas Act of 1938, as amended (NGA), and authorizes the construction and siting of facilities for the import or export of natural gas under section 3 of the NGA. It also authorizes the construction and operation of natural gas pipelines pursuant to the Natural Gas Policy Act. The FERC's authorization requires that interstate pipelines maintain service at certificated levels. Pipeline repair projects can often be accomplished within existing authorizations and exemptions.

The Forest Service (FS), within the Department of Agriculture, is responsible for the management of 192 million acres of National Forest System (NFS) lands. Many hundreds of miles of natural gas and hazardous liquid pipelines cross NFS lands. Most of these pipelines are permitted by BLM-issued rights-of-way grants, pursuant the authority granted to the Secretary of the Interior in section 28 of the Mineral Leasing Act of 1920, as amended. Those that are not are instead permitted by FS-issued special use authorizations.

The Department of Energy (DOE) is charged with developing and coordinating national energy policy. DOE protects U.S. national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy. DOE's Office of Energy Assurance (EA) works in close collaboration with other Federal agencies, State and local governments, and the private sector to protect the Nation against

severe energy supply disruptions such as those that can result from safety related reductions in pipeline operating pressures¹.

The Advisory Council on Historic Preservation (ACHP) reviews and provides comments with regard to actions by Federal agencies that may affect properties listed or eligible to be listed on the National Register of Historic Places pursuant to the National Historic Preservation Act.

IV. PARTICIPATING AGENCY AGREEMENT

The Participating Agencies hereby agree to work with each other, and with other entities as appropriate (e.g., State agencies), to ensure that timely decisions are made to enable pipeline repairs to occur within the time periods specified by rule by the DOT, while ensuring that the environmental review and permitting responsibilities of each agency are met.

Specifically, each Participating Agency agrees to:

- A. recognize that the DOT classifications of pipeline repairs mandate certain pipeline repairs within specific time frames;
- B. provide information to facilitate information exchange through the National Pipeline Mapping System (NPMS) between pipeline operators and agencies with safety, environmental review, or energy supply assessment responsibilities, including:
 - 1. information from pipeline operators on the schedule for testing of their natural gas and hazardous liquid pipelines pursuant to DOT's Integrity Management Program (IMP) regulations;
 - 2. relevant contact information for agency officials with direct authority over permitting activities for each specific pipeline segment in the NPMS;
 - 3. regional and field level information, where practicable, on resources of concern, including, but not limited to, species and habitats protected under the ESA;
 - 4. information on permits or authorizations that may be required to conduct repairs in areas in and around specific pipelines in the NPMS;² and

¹ DOT's IMP regulations for pipelines specify timeframes within which certain types of repairs must be completed. When a pipeline operator cannot complete a repair within the required timeframe, those regulations require the operator to reduce the pipeline's operating pressure by 20% or more to ensure its continued safe operation; this reduction in product flow can have significant adverse impacts not only on the supply of fuel regionally, but also on the price of fuel nationally.

5. information on specific pipeline segments in the NPMS where disruption of the energy supply due to shut-down or operating pressure reductions could create critical risks to public health and safety³;
- C. participate in appropriate pre-inspection planning and coordination to determine, as much as possible, what actions would need to be undertaken should a repair be necessary.
 - D. give priority to processing of permits for those repairs classified as "immediate" or "time-sensitive" pursuant to DOT's repair characterizations over other less urgent permit application reviews;
 - E. work together at all appropriate administrative levels to define, regularly review, and where necessary, refine a set of Best Management Practices (BMPs) that, when used in making pipeline repairs, will aid the expedited consideration of permitting requests, minimize adverse impacts on the environment and reduce the need for post-repair remediation;
 - F. establish a Working Group to develop guidance documents with procedures that can be used to coordinate and expedite repair permitting processes for those repairs classified as "immediate" or "time-sensitive" pursuant to DOT's repair characterizations; and
 - G. where disagreements arise among the Participating Agencies or between one or more Participating Agencies and State and local agencies and the pipeline operator, participate in any process established by the Ombudsman designated pursuant to 49 U.S.C. 60133(e) to assist in resolving those disagreements, consistent with the protection of human health, public safety, and the environment.

V. IT IS MUTUALLY AGREED AND UNDERSTOOD THAT:

- A. Nothing in this MOU will be construed by the Participating Agencies to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury.

² The exchange of information in this format does not replace a formal consultation or fulfill any consultation requirements under the ESA or fulfill the need to obtain appropriate permit authorizations under the CWA or RHA.

³ When a repair cannot be performed within the required timeframe, DOT regulations require the operator to reduce the pipeline's operating pressure by 20% or as much more as is necessary to ensure its continued safe operation; this reduction in product flow can have significant adverse impacts not only on fuel prices (as when regional shortages cause national price spikes), but also on public health and safety (as when fuel shortages during peak usage times threaten the availability of heat, lights, and clean water).

- B. This MOU may be modified or amended upon written request of any party hereto and the subsequent written concurrence of all of the Participating Agencies. Participation in this MOU may be terminated sixty (60) days after providing written notice of such termination to the other Participating Agencies.
- C. This MOU is intended only to improve the working relationships of the Participating Agencies in connection with expeditious decisions with regard to coordination of environmental reviews for pipeline repair projects and does not create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by any person or party against the United States, its agencies, its officers, or any other person.
- D. This MOU is to be construed in a manner consistent with all existing laws and regulations.
- E. This MOU neither expands nor is in derogation of those powers and authorities (including existing authorities described in Part III of this Memorandum) vested in the Participating Agencies by applicable law, statutes, regulations, or Executive Orders, nor is it intended to modify or supersede any other applicable interagency agreements existing as of the date of this MOU.
- F. The Participating Agencies intend to fully carry out the terms of this MOU. All provisions in this MOU, however, are subject to available resources.
- G. This MOU does not affect any guidelines related to information quality issued by the Participating Agencies in connection with section 515 of the Treasury and General Government Appropriations Act for FY 2001 (P.L. 106-554). Information disseminated pursuant to this MOU will be subject to the information quality guidelines of the Participating Agency that disseminates such information, and requests for correction of such information will be addressed by such Participating Agency according to that Agency's established guidelines.

VI. PRINCIPAL CONTACTS

Each Participating Agency hereby designates, as shown in Appendix A, a principal point of contact for that agency. These contacts may be changed at the Participating Agency's discretion upon notice to the other Participating Agencies.

VII. SIGNATORIES

James L. Connaughton
Chairman
Council on Environmental Quality

Date

Jeffrey Shane
Under Secretary for Policy
Department of Transportation

Date

Stephen L. Johnson
Acting Deputy Administrator
Environmental Protection Agency

Date

J. Steven Griles
Deputy Secretary
Department of the Interior

Date

Theodore W. Kassinger
General Counsel
Department of Commerce

Date

John Paul Woodley, Jr.
Assistant Secretary of the Army (Civil Works)
Department of Defense

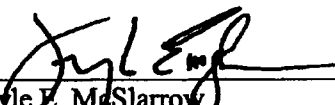
Date

Pat Wood, III
Chairman
Federal Energy Regulatory Commission

Date

Jim Moseley
Deputy Secretary
Department of Agriculture

Date



Kyle E. McSlarrow
Deputy Secretary
Department of Energy

June 3, 2004
Date

John Nau
Chairman
Advisory Council on Historic Preservation

Date

APPENDIX A PRINCIPAL CONTACTS

The following are the principal initial contacts for each agency:

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Department of Transportation

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Environmental Protection Agency

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Department of the Interior

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202-452-7708 (fax)

Bureau Of Reclamation
TBD

Bureau Of Indian Affairs
TBD

Department of Commerce

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Department of Defense

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Federal Energy Regulatory Commission

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Department of Agriculture

TBD

Department of Energy

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Advisory Council on Historic Preservation

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Advisory Council on Historic Preservation
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(202) 606-8672 (fax)

**Department of Energy**

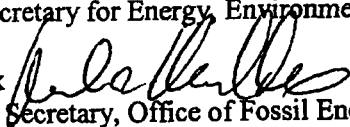
Washington, DC 20585

June 2, 2004

ES04-004817

MEMORANDUM FOR THE DEPUTY SECRETARY

THRU: David Garman
Acting Under Secretary for Energy, Environment, and Science

FROM: Mark R. Maddox 
Acting Assistant Secretary, Office of Fossil Energy

SUBJECT: **ACTION:** Approve draft nteragency memorandum of understanding (MOU) concerning coordination of environmental reviews for pipeline repair projects.

ISSUE: The President signed the Pipeline Safety Improvement Act of 2002 (Public Law 107-355) on December 17, 2002. Section 16 of the Act directed the President to establish an Interagency Committee to develop and ensure implementation of a coordinated environmental review and permitting process in order to enable pipeline operators to commence and complete all activities necessary to carry out pipeline repairs within the time periods to be established and in accordance with the statutory and regulatory requirements of the agencies comprising the Interagency Committee. These agencies were directed to enter into a memorandum of understanding (MOU) detailing signatory agencies' responsibilities in this program no later than one-year after enactment and to consult with State and local environmental, pipeline safety, and emergency response officials.

The attached draft MOU identifies existing authorities and responsibilities of Committee members (identified in the MOU as "Participating Agencies"). The draft MOU also establishes a framework for agency coordination and collaboration and designates principal contacts.

The Chairman of the Council on Environmental Quality will chair the Interagency Committee. The Department of Energy will participate as a member of the Interagency Committee.

SENSITIVITIES: Although the one-year statutory deadline for the MOU has passed, the members of the Interagency Committee would like to execute the MOU as soon as possible.



The Interagency Committee cannot enter into the MOU except by unanimous agreement of the Participating Agencies. Six of the ten Participating Agencies have signed the MOU. Many of the Participating Agencies to this MOU are also participating in DOE's Interagency Working Group to update the Administration's National Energy Policy.

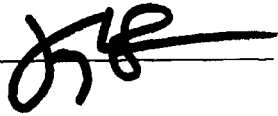
POLICY IMPACT:

The Administration's May 2001 National Energy Policy recommends that the President direct agencies to continue their interagency efforts to improve pipeline safety and expedite pipeline permitting in an environmentally sound manner and emphasized the important role of the Federal Government in that effort.

RECOMMENDATION: That you approve the MOU and sign it.

ATTACHMENT

APPROVED: _____



DATE: _____

6/3/04

DISAPPROVED: _____

DATE: _____

CLIMATE VISION MEMORANDUM OF UNDERSTANDING BETWEEN THE UNITED STATES ELECTRIC POWER SECTOR AND THE DEPARTMENT OF ENERGY

I. Overview

This Memorandum of Understanding (MOU) establishes a voluntary umbrella framework for reducing the greenhouse gas (GHG) emission intensity of the power sector. This framework shall be part of the President's Climate VISION ("Voluntary Innovative Sector Initiatives: Opportunities Now") program, which was established on February 12, 2003, as a public-private partnership to address the long-term challenge of global climate change and to make a meaningful contribution to the President's goal of reducing the GHG intensity of the United States' economy by 18 percent by 2012.

This MOU is entered into by and between each of the six electric power sector trade associations of the United States (as named below), the Tennessee Valley Authority (TVA), and the United States Department of Energy (DOE), hereinafter collectively referred to as the "Parties." The six trade associations that are Parties to the MOU are: American Public Power Association, Edison Electric Institute, Electric Power Supply Association, Large Public Power Council, National Rural Electric Cooperative Association and Nuclear Energy Institute. TVA and the six trade associations, acting through their members, are hereinafter collectively referred to as the "Power PartnersSM."

II. Goals

The overall goal of this MOU is to support the President in his efforts to reduce the GHG emissions intensity of the U.S. economy by 18 percent by the end of 2012. To this end, the Power PartnersSM and DOE agree to work collectively to establish an effective and robust partnership between the electric power sector and DOE that is:

- Part of a larger economy-wide effort under the Climate VISION program and other voluntary programs to reduce the GHG emission intensity of the U.S. economy;
- Intended to make a meaningful contribution by the power sector to ensure the achievement of the President's GHG emission intensity goal¹ by 2012; and
- Intended to facilitate actions by the Power PartnersSM and their members and TVA to reduce collectively the power sector's GHG emission intensity² by an equivalent of 3 to 5 percent below 2000-2002 baseline levels, as measured over the 2010-2012 period.

The Power PartnersSM emissions intensity reduction³ goal is based on anticipated future trends and conditions within the power sector and other major sectors of the U.S. economy.⁴ In

¹ President Bush's intensity goal is defined in terms of the ratio of national GHG emissions to gross domestic product (GDP).

² The power sector's collective intensity goal is defined in terms of the ratio of carbon equivalent emissions to generation (MWH). However, the Power PartnersSM members that choose to set company-specific intensity goals may express their goals in other ways, such as by using other intensity metrics.

addition, the goal applies to the entire electric power sector and does not apply individually to the Power PartnersSM or their members.

As a secondary goal of this MOU, the Power PartnersSM and DOE agree to work collectively to spur GHG emission intensity reductions across all sectors of the economy through collaborations with electricity end-users/customers in the industrial, commercial, residential and transportation sectors.

III. Principles

By entering into this MOU, the Parties agree to undertake a robust public-private partnership for the purpose of advancing the “new approach to the challenge of global climate change” that the President announced on February 14, 2002. This new approach is designed to harness the power of the markets and technological innovation to reduce GHG emissions intensity.

The Parties recognize that climate change is a global, complex, long-term challenge that will require a sustained effort over many generations. One essential element of an effective U.S. response entails promoting the research, development and commercial use of innovative, economic, zero- or low-emissions technologies for the electric power and other sectors, including technologies for carbon capture and sequestration.

Activities undertaken as part of the Climate VISION program will be voluntary and flexible and may cover any GHG, while also promoting the energy and environmental enhancement objectives of the program. Participation by the Power PartnersSM does not constitute endorsement of any particular scientific theory on global climate change.

The Parties recognize that the primary responsibility of the Power PartnersSM is to facilitate actions by their members and TVA, in accordance with the framework established in the MOU, for the purpose of achieving the goals and objectives set forth in the MOU. However, the Parties recognize that the Power PartnersSM trade association members and TVA have specific, but varying circumstances (*i.e.*, diverse growth requirements, power supply demands, fuel mix, geographical constraints, and financial and other resource limitations) that will influence and affect their operations and the actions they take.

IV. Parties' Joint Actions

As part of the Climate VISION program, the Parties seek to achieve the goals and purposes of this MOU in a transparent manner. Such efforts will include consistent and periodic evaluations of progress by the Parties and encouragement of the submission of reports by the Power PartnersSM trade association members and TVA under section 1605(b) of the Energy Policy Act of 1992 (hereinafter referred to as “1605(b) program”).

Under this MOU, the Parties will work together to:

³ References to “reductions” in this MOU and attachments include avoidances and sequestrations.

⁴ Emissions in the carbon intensity metric will be adjusted, as appropriate, in accordance with the Work Plan developed under this MOU.

- Promote economic GHG emission intensity reductions.
- Encourage expanded use of current low-emission or no-emission technologies, such as nuclear; hydroelectric, wind and other renewables; highly efficient natural gas; and clean coal technologies.
- Pursue approaches that will complement and continue to promote the research, development, demonstration and, as soon as practicable, widespread commercial use of economic zero- or low-carbon electric generation technologies and processes (including carbon capture and sequestration) and of advanced, high-efficiency electric generation, transmission, distribution and end-use technologies.
- Develop strategies to assist others in reducing GHG emission intensity, such as Power PartnersSM member companies' electricity end-users/customers in the industrial, commercial, residential and transportation sectors of the U.S. economy.
- Facilitate the development and use of tools for measuring and reporting power sector GHG emissions and emissions reductions.

The Parties agree to work together to develop and encourage policies and practices that will enhance, facilitate and encourage voluntary efforts for GHG emission intensity reductions and that will provide incentives and reduce barriers to such reductions. In particular, it is the aim of the Parties to advance the goals and objectives of this MOU by promoting policies that:

- Provide investment stimulus on an equitable basis to all segments of the power sector in order to accelerate use of existing GHG-reducing technologies, deploy advanced technologies and maintain America's critical energy infrastructure.
- Create and maintain regulatory stability, and minimize regulatory uncertainty and delay.
- Remove unnecessary constraints that may inhibit implementation of voluntary GHG reductions and use of lower-emitting technologies.
- Spur investment in the short term and long term through a balanced and progressive research, development and deployment portfolio.

One such policy of importance to Power PartnersSM and their members is the revision of the guidelines for reporting and registering GHG emission intensity reductions under the 1605(b) program.

The Parties will jointly coordinate the development of a "living document" Work Plan that mutually reflects, to the greatest extent possible, the flexible implementation strategies and actions for achieving the goals of this MOU. The Power PartnersSM contribution to such a Work Plan shall be based on the activities and initiatives described in their action plans submitted to the Secretary of Energy in connection with the initiation of the Climate VISION program on February 12, 2003.

The Parties agree to confer, at reasonable intervals, on the progress towards achieving the Power PartnersSM GHG intensity reduction goal and implementing the other provisions established under this MOU. Additional actions or other such changes may be reflected by revising the terms and provisions of this MOU if they are mutually agreed to by the Parties.

The Power PartnersSM and DOE view the development and use of advanced technologies as critical to the achievement of the President's goal to reduce U.S. GHG intensity by 18 percent by 2012. The Parties agree to work collectively to develop a process, subject to the availability of private sector and public sector funds and applicable provisions of law, for (i) identifying high-priority areas for power sector research, development, demonstration and deployment (RDD&D)⁵ associated with technologies that would contribute to the achievement of the President's greenhouse gas intensity reduction goal and would contribute ultimately to surpassing this goal, and (ii) recommending steps to carry out power sector RDD&D in the identified high-priority areas, including, as appropriate, strengthening existing and establishing new public-private partnerships. This process will seek to identify: (i) climate technology needs for the electric power sector; (ii) gaps in current power sector climate technology RDD&D; (iii) priority areas for new or supplemental power sector climate technology RDD&D; and (iv) options for potential funding mechanisms for early commercial use of advanced technologies. This process will be facilitated by the Office of National Energy Policy (NEP) and will involve the Climate Change Technology Program (CTTP) and appropriate DOE Program Offices.⁶

V. The Power PartnersSM Actions

The Power PartnersSM will take actions to encourage and facilitate maximum participation in the Climate VISION program by their trade association members and TVA. The important purposes of this effort will be to improve the level and depth of participation, through workshops or other means, of their trade association members and TVA and to enhance performance and reporting.

The Power PartnersSM will encourage their trade association members to achieve collectively the goals, actions and initiatives described in the associations' Climate VISION action plans, which were transmitted by letter from each of the Power PartnersSM members to the Secretary of Energy. Collectively, these action plans serve as the starting point for the establishment of an effective voluntary framework for reducing the GHG emission intensity of the power sector.

The Power PartnersSM will use best efforts to achieve their GHG intensity reduction goal under this MOU by facilitating their membership's undertaking of activities that contribute to achieving this goal, including those described in the "living document" Work Plan that the Power Partners develop with DOE. Trade associations and TVA individually or Power PartnersSM collectively may develop additional programs, strategies and initiatives for inclusion in the Work Plan. The activities contained in the Work Plan will cover a wide range of actions that may be undertaken over the term of this MOU to achieve GHG emissions intensity reductions.

Trade association member companies and TVA may memorialize their voluntary actions, programs and activities through company-specific plans tailored and detailed in accordance with such members' and TVA's circumstances and submitted to the Power PartnersSM and DOE. Member companies and TVA are encouraged to use the 1605(b) program for reporting and

⁵ This power sector RDD&D can include research, development, demonstration and deployment of advanced zero- or low-carbon emission electric generation technologies (including carbon capture and sequestration) and advanced, high-efficiency electric generation, transmission, distribution and end-use technologies.

⁶ These DOE program offices include the Offices of Science; Fossil Energy; Nuclear Energy, Science and Technology; Electric Transmission and Distribution; and Energy Efficiency and Renewable Energy.

registering GHG emissions intensity reductions achieved under company-specific plans and this voluntary program.

The Power PartnersSM will develop and promote initiatives that will allow their member companies and TVA to pool their resources and collaborate collectively on joint, industry-wide programs and activities to reduce GHG emissions intensity.

The Power PartnersSM will prepare an annual report on activities and accomplishments under this MOU, beginning two calendar years after this MOU is signed by the Parties. This report shall present the actions taken and results achieved through the Climate VISION program during the preceding year and shall include an analysis that explains how these activities and accomplishments represent a meaningful contribution by the power sector to the President's 18 percent GHG emission intensity reduction goal. In support of this effort, the Power PartnersSM will develop a standardized metric for annual reporting to measure progress in reducing carbon emission intensity for the electric power sector. This report and accompanying analysis will reflect anticipated future trends and conditions within the power sector and other major sectors of the U.S. economy.

VI. DOE Actions

Because future trends and conditions within the power sector are affected by government policies, DOE will use its best efforts to develop and implement programs, policies, regulations, budgets and legislative proposals in support of the goals and purposes of this MOU.

DOE will use its best efforts to: promote the harmonization of governmental policies and procedures; promote the minimization of regulatory barriers and uncertainties; encourage supportive fiscal and other actions and incentives; and otherwise promote an atmosphere that encourages and supports Power PartnersSM in their efforts to achieve the goals and purposes of this MOU.

DOE, in consultation with other federal agencies, is revising the reporting guidelines for the 1605(b) program. As directed by the President, the revised reporting guidelines are intended in part to provide an effective "tool for companies to publicly record their progress" in reducing GHG emission intensity. The policy material accompanying the President's February 2002 climate change speech stated that this "tool goes hand-in-hand with voluntary business" actions, such as those to be undertaken by the Climate VISION Program generally and this MOU specifically. To this end, DOE will strive to assure that collection and documentation of information through EIA under the 1605(b) program are consistent with, and support the achievement of, the President's overall climate change objectives of February 14, 2002, and the goals and objectives of this MOU.

Through the Climate VISION program, DOE will provide recognition to the Power PartnersSM and their members for making substantial contributions to GHG emission intensity reductions through the 1605(b) program and by other means. DOE will also provide recognition to the Power PartnersSM and their members that make financial contributions to GHG emissions reduction research, development and commercial use of advanced technologies and practices that

help achieve the 18 percent national emissions intensity reduction goal and look toward future time frames.

DOE shall offer technical assistance to the Power PartnersSM and their member companies and TVA in support of the goals, activities and actions undertaken pursuant to this MOU. This assistance can include DOE support in the development of:

- Voluntary commitments, actions, programs and other such strategies under this MOU for reducing GHG emission intensity;
- Tools for measuring and reporting GHG emissions intensity reductions and for achieving energy savings; and
- Strategies to assist others to reduce the overall GHG emission intensity of the economy, such as by demand-side management, energy efficiency, and utilization of electrotechnology applications by customers and other end-users.

VII. General Provisions

The Parties enter into this MOU under the authority provided to DOE in the Department of Energy Organization Act (Pub. L. No. 95-91), section 203, 42 U.S.C. § 7133, and section 646, 42 U.S.C. § 7256.

The Parties agree to work together to promote public and congressional awareness and confidence in the Climate VISION program and this MOU. The Parties also agree to attempt to resolve in a mutually satisfactory manner issues with respect to proposed amendments, interpretative and other matters that may arise in the implementation of this MOU.

Each Party shall designate a point of contact for the foregoing purposes and otherwise facilitate implementation of this MOU. Any Party shall notify all other Parties of any change in its designated contact person.

Any Party may, after 30 days notice in writing to other Parties, terminate its participation in the agreement without penalty or criticism, and without being subject to any judicial action.

This MOU is not a binding contract but is a memorandum of understanding which states the parties' basic understandings of the voluntary tasks and methods for performing the tasks stated herein. This MOU is not legally enforceable and shall not be construed to create any legal obligation on the part of any Party or any third party or person.

Nothing in this MOU authorizes or is intended to obligate the Parties to expend, obligate, exchange, or reimburse funds, services, or supplies or transfer or receive anything of value or to enter into any contract, agreement, or other financial obligation.

Trade secrets and commercial or financial information that is privileged or confidential and that is contained in reports made pursuant to section V of this MOU shall be protected as provided in section 552(b)(4) of title 5, United States Code.

This MOU shall become effective as of the date the last Party duly executes it below:

Date: September __, 2004

/signatures/

/names of trade association and TVA heads/names of trade associations and TVA/Secretary of
Energy

**Department of Energy**

Washington, DC 20585

October 13, 2004

ES# 2004-008442**MEMORANDUM FOR THE SECRETARY**

FROM: VINCENT DEVITO
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

ACTION: Approve Climate VISION Memorandum of Understanding (MOU)
Between the United States Electric Power Sector and the Department of
Energy.

ISSUE: DOE and the Electric Power Sector have reached an agreement for
establishing a framework for a public-private partnership to reduce the
greenhouse gas intensity of the power sector. This memorandum describes
the MOU and accompanying Work Plan.

BACKGROUND:

On February 14, 2002, President Bush announced a goal to reduce U.S. greenhouse gas (GHG) emissions intensity—the ratio of emissions to economic output—by 18 percent over the next 10 years. Climate VISION is a Presidential public-private partnership initiative launched by the Department of Energy on February 12, 2003, to contribute to the President's goal of reducing GHG intensity. Other agencies participating in Climate VISION include the Environmental Protection Agency, Department of Transportation, Department of Agriculture, and Department of the Interior.

Business associations representing 12 industry sectors and the Business Roundtable have become program partners. From a greenhouse gas perspective, the biggest among these is the power generation sector, which accounts for roughly one third of U.S. emissions. This sector participates in Climate VISION through Power Partners, which is composed of six trade associations (American Public Power Association, Edison Electric Institute, Electric Power Supply Association, Large Public Power Council, Nuclear Energy Institute, and the National Rural Electric Cooperative Association) and the Tennessee Valley Authority.



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DISCUSSION:

DOE and Power Partners have reached an agreement on a Memorandum of Understanding (MOU) and accompanying Work Plan to establish an effective public-private partnership to further the President's goal of an 18 percent reduction in GHG emission intensity goal by 2012. The attached MOU and Work Plan for your final review are the products of many negotiating meetings that took place over many months. These documents already have been reviewed and supported by the Deputy Secretary, the White House (Council on Environmental Quality) and DOE's Office of General Counsel and determined to be consistent with the purposes and objectives of the Climate VISION program and in furtherance of the President's national goal. At the direction of the Deputy Secretary and General Counsel's Office, the documents also were reviewed and commented upon by the heads of all of the relevant DOE program offices (Acting Under Secretary David Garman, EERE, FE, OETD, and NE).

The MOU sets out the roles and responsibilities of both Power Partners and DOE. It establishes goals for the public-private partnership, sets out general principles consistent with the Administration's approach to climate change mitigation, and proposes joint and individual actions to further the objectives of the partnership. While the MOU provides a general framework for the partnership, the Work Plan fleshes out in more detail concrete milestones.

The following highlights important aspects of the MOU:

Power Partners Commitment:

Power Partners have pledged in the MOU to reduce collectively the power sector's GHG emission intensity—defined primarily as the ratio of carbon equivalent emissions to MWH produced—by an equivalent of 3 to 5 percent below 2000-2002 baseline levels, as measured over the 2010-2012 period.

Policy Promotion; Section 1605(b) Voluntary Greenhouse Gas Registry

Under the MOU, the Parties would work together to develop and promote policies that would provide incentives and reduce barriers to achieving GHG emission intensity reductions. The MOU sets out in broad categories the types of policies that the Parties would seek to promote in order to advance the goals and objectives of the MOU. These categories include investment stimulus to adopt new technologies and maintain infrastructure, regulatory stability and removal of unnecessary barriers and constraints, and research, development, and demonstration. In addition, the Parties recognize that one key policy development is the establishment of revised guidelines for reporting and registering GHG emission intensity reductions under Section 1605(b) of the Energy Policy Act of 1992 (hereinafter, the 1605(b) program). Section 1605(b) will be the preferred method of reporting company results under the program. Power Partners view the revised 1605(b) program as integral to their members' participation in Climate VISION. While the language in the attached MOU identifies the revised 1605(b)

guidelines as an important policy, as well a tool that can be used by Climate VISION participants, it does not link implementation of the MOU and the achievement of the Power Partners' commitment to any particular outcome of the proceeding to revise the 1605(b) guidelines.

Research, Development, Demonstration and Deployment

The MOU recognizes the importance of developing and getting into the marketplace new technologies to meet the President's goal. Under the MOU, subject to the availability of private sector and public sector funds and applicable provisions of law, DOE and Power Partners would work together to develop, across programmatic areas, a process for identifying high-priority areas for the research, development, demonstration & deployment (RDD&D) of technologies that would contribute to the President's goal and, ultimately, contribute to exceed it. This process will seek to identify: (i) climate technology needs for the electric power sector; (ii) gaps in current power sector climate technology RDD&D; (iii) priority areas for new or supplemental power sector climate technology RDD&D; and (iv) options for potential funding mechanisms for early commercial use of advanced technologies. The process also will recommend steps to carry out power sector RDD&D in identified high-priority areas. This process will be facilitated by the Office of the Under Secretary for Energy, Science and Environment and will include the Office of National Energy Policy and appropriate DOE program offices.

These provisions do not bind either Party to the achievement of any specific outcomes, but instead call upon the Parties to develop together a cross-cutting process for identifying needs and recommending steps to address those needs.

Revisions to the MOU

Based on the comments submitted by Acting Under Secretary Garman and the heads of FE, OETD, and NE, certain revisions were made to the MOU. Most of the comments centered on the power sector RDD&D provisions. These provisions in section IV of the MOU, "Parties' Joint Actions," were significantly shortened and re-oriented. The process described will only identify needs, gaps and priority areas for new and supplemental climate technology RDD&D and recommend further steps to be taken. It no longer contains any language relating to the performance of the recommendations. All references to EPRI have been deleted. Moreover, as before, the process is subject to the availability of private sector and public sector funding and applicable provisions of law, including the Federal Advisory Committee Act.

Other changes include replacing the word "accelerating" research, development and deployment with "continue to promote" and "complement." The two Attachments (Work Plan and RDD&D) have been deleted. The Work Plan now just accompanies the MOU.

The documents contain changes to address specific comments submitted by the program offices, as well as general concerns raised about the RDD&D provisions.

REQUEST: Approve the MOU negotiated between DOE and Power Partners.



Approve

Disapprove

ATTACHMENTS: 1) MOU between DOE and Power Partners
2) Work Plan
3) Written Comments submitted by Under Secretary Garman and
Heads of OETD and FE
4) Marked copy of MOU to indicate changes

CONCURRENCE: Lee Liberman Otis, General Counsel

cc: Kyle McSlarrow
David Garman
Mark Maddox
William Magwood
William Parks
David Conover
Larisa Dobriansky



The Deputy Secretary of Energy
Washington, DC 20585

June 30, 2004

MEMORANDUM TO: DAVID GARMAN
ACTING UNDER SECRETARY

JIMMY GLOTFELTY
DIRECTOR
OFFICE OF ELECTRICITY TRANSMISSION AND
DISTRIBUTION

MARK MADDOX
ACTING ASSISTANT SECRETARY
OFFICE OF FOSSIL ENERGY

WILLIAM MAGWOOD
DIRECTOR
OFFICE OF NUCLEAR ENERGY

FROM: KYLE E. McSLARROW

A handwritten signature in dark ink, appearing to read "K. McSlarrow", is written over the printed name.

ACTION: Review Climate VISION Memorandum of Understanding (MOU)
Between the United States Electric Power Sector and the Department of
Energy and the accompanying Work Plan

ISSUE: DOE and the Electric Power Sector have reached an agreement for
establishing a framework for a public-private partnership to reduce the
greenhouse gas intensity of the power sector. This memorandum describes
the MOU and accompanying Work Plan.

BACKGROUND:

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Business associations representing 12 industry sectors and the Business Roundtable have become program partners. From a greenhouse gas perspective, the biggest among these is the power generation sector, which accounts for roughly one third of U.S. emissions. This sector participates in Climate VISION through Power Partners, which is composed of six trade associations (American Public Power Association, Edison Electric Institute, Electric Power Supply Association, Large Public Power Council, Nuclear Energy Institute, and the National Rural Electric Cooperative Association) and the Tennessee Valley Authority.

DISCUSSION:

DOE and Power Partners have reached an agreement on a Memorandum of Understanding (MOU) and accompanying Work Plan to establish an effective public-private partnership to further the President's goal of an 18 percent reduction in GHG emission intensity goal by 2012. The attached MOU and Work Plan for your review are the products of many negotiating meetings that took place over many months. These documents have been reviewed by my office, the White House (Council on Environmental Quality) and DOE's Office of General Counsel and determined to be consistent with the purposes and objectives of the Climate VISION program and in furtherance of the President's national goal.

The MOU sets out the roles and responsibilities of both Power Partners and DOE. It establishes goals for the public-private partnership, sets out general principles consistent with the Administration's approach to climate change mitigation, and proposes joint and individual actions to further the objectives of the partnership. While the MOU provides a general framework for the partnership, the Work Plan fleshes out in more detail concrete milestones.

The following highlights important aspects of the MOU:

Power Partners Commitment:

Power Partners have pledged in the MOU to reduce collectively the power sector's GHG emission intensity—defined primarily as the ratio of carbon equivalent emissions to MWH produced—by an equivalent of 3 to 5 percent below 2000-2002 baseline levels, as measured over the 2010-2012 period.

Policy Promotion; Section 1605(b) Voluntary Greenhouse Gas Registry

Under the MOU, the Parties would work together to develop and promote policies that would provide incentives and reduce barriers to achieving GHG emission intensity reductions. The MOU sets out in broad categories the types of policies that the Parties would seek to promote in order to advance the goals and objectives of the MOU. These categories include investment stimulus to adopt new technologies and maintain infrastructure, regulatory stability and removal of unnecessary barriers and constraints, and research, development, and demonstration. In addition, the Parties recognize that one

key policy development is the establishment of revised guidelines for reporting and registering GHG emission intensity reductions under Section 1605(b) of the Energy Policy Act of 1992 (hereinafter, the 1605(b) program). Section 1605(b) will be the preferred method of reporting company results under the program. Power Partners view the revised 1605(b) program as integral to their members' participation in Climate VISION. While the language in the attached MOU identifies the revised 1605(b) as an important policy, as well a tool that can be used by Climate VISION participants, it does not link implementation of the MOU and the achievement of the Power Partners' commitment to any particular outcome of the proceeding to revise 1605(b).

Research, Development, and Deployment

The MOU recognizes the importance of developing and getting into the marketplace new technologies to meet the President's goal. Under the MOU, DOE and Power Partners would work together to develop a process for identifying high-priority Research, Development & Deployment projects across programmatic areas necessary to attaining and exceeding the Power Partners' commitment, especially identifying gap areas, and to allow for the Parties to carry out projects that would contribute meaningfully to the President's goal.

This four-step process (described in the MOU and Attachment 2 to the MOU) would: (1) identify jointly research needs and make recommendations on research priorities; (2) strengthen or establish new partnerships as appropriate to carry out any needed research; (3) perform research through the partnerships, subject to availability of federal and non-federal funding and applicable law; and (4) evaluate new policy mechanisms to support early commercial adoption of new technologies.

It is this section of the MOU, contained in Section IV. Parties' Joint Actions on page four, and accompanying Attachment 2, that I would like for you to review most closely. While my office, the Office of General Counsel and the White House view these provisions as consistent with and in furtherance of the goals and objectives of the Climate VISION program, I encourage you to review the language of the MOU and Attachment and offer any suggestions on changes and timing of the process that you believe would improve these provisions. These provisions are not intended to bind either Party to the achievement of any specific outcomes, but instead call upon the Parties to develop together a process through which concrete implementation steps could move forward only with the joint agreement of both Parties.

REQUEST:

Please review and provide your comments to Dave Conover by COB, Thursday, July 8, 2004. In addition, Larisa Dobriansky will be scheduling meetings with each of you or your designees to brief you on these materials.

- ATTACHMENTS:
- 1) MOU between DOE and Power Partners
 - 2) Attachment 1 to MOU: Work Plan
 - 3) Attachment 2 to MOU: Power Sector Climate Technology
RD&D Partnerships

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
AND
THE OVERSEAS PRIVATE INVESTMENT CORPORATION**

WHEREAS, the United States Department of Energy (DOE), a cabinet-level executive agency, is committed to advancing secure and sustainable energy systems both in the U.S. and abroad. Toward this end, the Department has undertaken programs and activities to help reduce poverty and spur environmentally sound economic growth in developing and transitional economies by: 1) Increasing access to cleaner, more efficient and affordable energy services; 2) Promoting investment and trade in U.S. clean energy technologies; and 3) Fostering policies, measures and institutional changes to expand markets for these technologies; and

WHEREAS, the Overseas Private Investment Corporation (OPIC), an independent agency of the Federal Government, was established to mobilize and facilitate the participation of U.S. private capital and skills in the economic and social development of less-developed countries and areas by offering: 1) Financing for investment projects through loans and loan guarantees; 2) Insuring investments overseas against a broad range of political risks; 3) Financing private investment funds that provide equity to business overseas; 4) Advocating the interests of the American business community overseas; and 5) Helping America's small businesses grow through investments in emerging markets around the world; and

WHEREAS, DOE and OPIC (the "Parties") recognize that increased cooperation between them will serve their common objectives and missions, further national objectives and initiatives, and advance U.S. commitments made at the World Summit on Sustainable Development in Johannesburg;

NOW, THEREFORE, the Parties seek through this Memorandum of Understanding (MOU) to establish a framework for enhanced cooperation between them in accordance with the principles and objectives set forth below.

AREAS OF COOPERATION

Partnering in Developmental Initiatives. The Parties agree to work together and to build partnerships with others to increase access to cleaner, more efficient and affordable energy services in emerging markets through initiatives such as, the *U.S. Clean Energy Initiative* and the *Clean Energy Technology Export Initiative*. Through partnerships with governments, businesses, and nongovernmental organizations ("NGOs"), the Parties agree to work together to reduce poverty and increase access to modern energy services; support community-based sustainable energy development; promote environmental quality; expand investment in cleaner, more efficient energy technologies and infrastructure; and enhance energy security.

Investment Development and Promotion. Consistent with their legal authority and policies, the Parties will cooperate to mobilize private investment in emerging markets by: 1) Helping to create locally sustainable institutions and practices to facilitate private investment; 2) Identifying best practices to overcome investment barriers; 3) Encouraging policy, regulatory and financing frameworks necessary to stimulate investment; and 4) Increasing awareness of the benefits of renewable energy and efficient energy systems.

Market and Project Development. The Parties agree to create an *Efficient Energy and Renewables Program* to facilitate market development for cleaner and more efficient energy products, services, technology, and infrastructure. Among other things, the Parties will work together to: 1) Identify market opportunities and facilitate project development; 2) Catalyze financial structures, products and services to make financing affordable, accessible and self-sustaining; and 3) Build partnerships for co-financing.

Strengthen Institutional Ties. The Parties will endeavor to strengthen institutional cooperation and develop greater understanding of the respective private-sector programs and missions of each Party.

Resource Sharing. The Parties recognize that significant advantages may accrue to jointly supported projects if the Parties work together efficiently and explore ways to maximize their respective abilities. In that light the Parties will, wherever possible and convenient, consider sharing information and resources necessary to support joint projects. Cooperation contemplated by the MOU is subject to the availability of appropriated funds, and compliance by each signatory with all applicable laws, regulations, and policies to which it may be subject.

General Information Exchange. The Parties will increase the amount of information sharing via meetings and working groups in order that the parties can better benefit from each other's experience, and identify ways that each can improve proposed deliverables.

Other Activities. The Parties will cooperate in such other activities as may be mutually agreed upon from time to time. Consistent with their respective institutional policies, the Parties will endeavor to identify further developmental initiatives appropriate for joint support efforts.

Designation of Points of Contact for Overall Coordination. Each Party shall designate an agency point of contact for overall coordination of activities and cooperation and to otherwise facilitate implementation under this MOU. Each Party shall notify the other of any change in its designated contact person.

Authority. DOE enters into this MOU with OPIC under the authority provided to DOE in the Department of Energy Organization Act (Pub. L. No.95-91), Section 102(10), 42 U.S.C. Section 7112(10) and Section 203(a)(4), 42 U.S.C. Section 7133(a)(4).

General Provisions. This MOU is not a binding contract but is a memorandum of understanding which states the Parties' basic understandings of the tasks and methods for performing the tasks described herein.

The Parties agree to attempt to resolve in a mutually satisfactory manner proposed amendments, interpretive and other questions that may arise in the implementation of this MOU. The Parties further agree that after 30 days written notice to the other Party, either Party may terminate its participation in this MOU.

NOW, THEREFORE, the Parties agree to work together to accomplish the above-stated goals.

IN WITNESS WHEREOF, the DOE and OPIC, each acting through its duly authorized representative, have executed and delivered this Memorandum in two original counterparts, effective this ____ day of August, 2004.

DEPARTMENT OF ENERGY

**OVERSEAS PRIVATE INVESTMENT
CORPORATION**

BY: _____

BY: _____

TITLE: _____

TITLE: _____

**Department of Energy**

Washington, DC 20585

July 28, 2004

2004-007877

MEMORANDUM FOR THE SECRETARY

FROM: VINCENT DEVITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

SUBJECT: Approve Memorandum of Understanding ("MOU")
between DOE and the Overseas Private Investment
Corporation ("OPIC").

ISSUE: PI is forwarding to you for your approval a Memorandum
of Understanding that we negotiated with OPIC to
increase private investment in cleaner, more efficient and
affordable energy services in emerging markets and to
build public-private partnerships through the *U.S. Clean
Energy Initiative* ("CEI") and the *Clean Energy
Technology Export Initiative* ("CETE").

BACKGROUND: Recognizing the benefits of increased cooperation, DOE
and OPIC have negotiated an MOU to serve common
objectives, further national initiatives and advance U.S.
commitments made at the World Summit on Sustainable
Development in Johannesburg. In particular, both sides
have recognized that significant advantages could accrue
from coordination in light of each agency's objectives and
efforts to mobilize private investment in emerging markets
and to facilitate market development in cleaner, more
efficient energy technologies.

The CEI is one of four public-private partnerships that the
President approved to launch at the WSSD in
Johannesburg. This partnership is designed to reduce
poverty and spur environmentally sound economic growth
in developing countries through increasing access to
modern, cleaner, efficient and affordable energy services.
The CETE is a nine-agency effort to promote the export of
cleaner, more efficient U.S. technologies overseas.



Printed with soy ink on recycled paper

DISCUSSION:

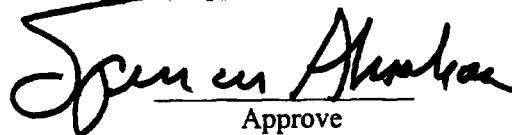
The MOU submitted for your approval would establish a framework for enhanced cooperation between DOE and OPIC in the following key areas: 1) Partnering in the CEI, CETE and other developmental initiatives to increase access to cleaner, more efficient energy services in emerging markets; 2) Promoting investment through supporting locally sustainable institutions, best practices and sound policies; 3) Facilitating market and project development through establishment of an *Efficient Energy and Renewables Program* that would focus on innovative financing and creative partnerships. Given our mutual interests and objectives, this MOU will strengthen our institutional ties, leverage scarce resources, maximize each agency's efforts and increase information exchange. This MOU also would serve to increase collaboration with other agencies and entities with whom DOE and OPIC partner through the CEI and CETE.

The attached MOU has been reviewed and cleared through each agency's general counsel's office and approved by OPIC.

SENSITIVITIES:

The MOU does not involve any transfer of funds from DOE to OPIC. Moreover, OPIC has indicated that its aim is to be supportive of DOE project development and technology deployment priorities through OPIC loans, guarantees, insurance, and fund financing. Any cooperation resulting from the MOU is subject to the availability of appropriated funds, compliance by each signatory with all applicable laws, regulations and policies to which it may be subject, and must be consistent with respective agency missions and functions.

RECOMMENDATION: 1) Approve the MOU negotiated between DOE and OPIC.



Approve

Disapprove

August 6, 2004

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
U.S. DEPARTMENT OF ENERGY
AND THE
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**

I. Background

Pursuant to the Atomic Energy Act of 1954, section 31a (42 U.S.C. § 2051a) and the Energy Reorganization Act of 1974, section 103(3) (42 U.S.C. § 5813(3)), the Department of Energy (DOE) is authorized to conduct and to make arrangements for the conduct of research activities relating to the protection of health, the promotion of safety related to its research and production activities, and the development of energy sources and utilization technologies. To achieve these objectives, DOE (includes Headquarters, field offices, service centers, site offices, and its laboratories) may, in addition to its own resources and programs, use the technical and management capabilities of other executive Agencies having facilities, personnel, or other resources that can assist in carrying out such responsibilities (Atomic Energy Act, section 161 (42 U.S.C. § 2201); Energy Reorganization Act, section 104(i) (42 U.S.C. § 5814(i)); and the Economy Act of 1932, as amended (31 U.S.C. § 1535 and 1536)).

II. Introduction

This is the fourth Memorandum of Understanding (MOU) between DOE and the Department of Health and Human Services (HHS). This MOU replaces the 2000 MOU between DOE and HHS and sets forth the guidelines and responsibilities for continuing the collaboration between DOE and HHS in a program of energy-related research and public health activities.

III. Purpose

This MOU outlines the collaboration between DOE and HHS to conduct research and public health activities that focus on the examination of health outcomes that may have resulted from DOE operations, including development and production of nuclear weapons and materials and other nuclear energy-related research and development activities.

This agreement includes public health issues related to terrorism preparedness and emergency response. For these collaborative efforts, DOE's Office of Health Studies will coordinate relevant MOU public health activities with DOE components; the HHS partners will coordinate the involvement of other relevant HHS components.

IV. Authorities

A. General

This MOU is made under the authority of the Economy Act of 1932, as amended (31 U.S.C. § 1535 and 1536).

B. DOE

Pursuant to the Atomic Energy Act of 1954, section 31a (42 U.S.C. § 2051a) and the Energy Reorganization Act of 1974, section 103(3) (42 U.S.C. § 5813(3)), DOE is authorized to conduct and to make arrangements for the conduct of research activities relating to the protection of health, the promotion of safety related to its research and production activities, and the development of energy sources and utilization technologies.

C. Naval Nuclear Propulsion Program (NNPP)

Where applicable, the Director, NNPP, will establish the necessary provisions with HHS for epidemiologic studies at naval nuclear propulsion facilities and activities (42 U.S.C. § 7158).

D. HHS/Centers for Disease Control and Prevention (CDC) (National Institute for Occupational Safety and Health (NIOSH) and the National Center for Environmental Health (NCEH))

The Secretary of HHS has legislative authority under section 301(a) of the Public Health Service Act (42 U.S.C. § 241) and under the Occupational Safety and Health Act (29 U.S.C. § 651 et seq.) to conduct research into the health effects of a broad range of environmental and occupational hazards and to cooperate with other appropriate authorities in the conduct of such research. NIOSH has authority under the Occupational Safety and Health Act, the Federal Mine Safety and Health Act, as amended (30 U.S.C. § 801 and 951).

E. HHS/Agency for Toxic Substances and Disease Registry (ATSDR)

ATSDR has legislative authority under: section 120 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9620), which concerns the application of CERCLA to Federal facilities; section 104(i) of CERCLA (42 U.S.C. § 9604), which concerns ATSDR's authorities and responsibilities; section 107 of CERCLA (42 U.S.C. § 9607), which concerns

liability; and section 3019 of the Solid Waste Disposal Act (SWDA) (42 U.S.C. § 6939a), which concerns exposure information and health assessments.

V. Responsibilities

A. DOE

DOE is authorized to conduct and to make arrangements for the conduct of research activities relating to the protection of worker and community health in performance of its energy production and development operations.

The Department's Office of Health Studies is responsible for management of this MOU. The specifics of DOE responsibilities are set out in various sections of the MOU. In general, DOE Office of Health Studies will:

- Review and duly consider and, if appropriate, agree upon the 5-year plan and the annual statement of work for each HHS Agency;
- Prepare interagency agreements between DOE Office of Health Studies and HHS Agencies that include the annual statement of work, major milestones, and level of annual support based on available resources;
- Secure support for MOU public health activities from the National Nuclear Security Administration (NNSA), the Office of Environmental Management, and other program offices within DOE that have oversight responsibility for DOE sites in which the MOU studies are being conducted;
- Continue to maintain documents and other sources of information beneficial to the performance of epidemiologic and other health-related activities and facilitate access to these sources by HHS Agencies (see DOE Order 231.1A and DOE Manual 231.1-1A);
- Ensure that results of health studies or activities are promptly disseminated to workers and community members and that results are assessed for their impact on DOE policies and procedures consistent with the *Communication Plan for Public Health Activities Conducted under the Memorandum of Understanding Between the Department of Health and Human Services and the Department of Energy* (hereafter, the Communication Plan);
- Continue to maintain the public use database, the Comprehensive Epidemiologic Data Resource (CEDR), to ensure the data's availability to all stakeholders; and
- Forward to the Office Management and Budget (OMB) for inclusion in the President's budget a request for resources necessary to carry out the research and public health activities each year.

B. CDC (NIOSH/NCEH) and ATSDR

Within HHS, CDC (NIOSH/NCEH) and ATSDR conduct energy-related epidemiologic research: NIOSH conducts research in the workplace; and NCEH conducts research related to ionizing radiation in the environment. ATSDR conducts public health activities mandated under CERCLA and SWDA at DOE sites where hazardous substances have been released into the environment. In general, CDC (NIOSH/NCEH) and ATSDR will:

- Develop a 5-year plan and an annual statement of work for each HHS Agency, including a listing of new and ongoing studies in order of importance, which will accompany the interagency agreement.
- Notify DOE Office of Health Studies if CDC (NIOSH/NCEH) and ATSDR determine they need to seek extramural advisors to support their work.
- Notify DOE Office of Health Studies about location and types of records access that is projected for the upcoming fiscal year.
- Design, conduct, analyze, and interpret research and public health activities conducted under this MOU, their contractors, grantees, or cooperative agreement holders under this MOU.
- Manage grants, contracts, and cooperative agreements with Tribes, States, local health departments, and academic institutions if extramural research is necessary and agreed to by all Agencies.
- Collaborate with communities, workers, labor representatives, and Native American Tribes, as appropriate, to involve them in planning and goal setting, exchanging information, and in designing, implementing, and evaluating Agency programs and activities.
- Involve, as appropriate, representatives of populations being studied in the review of studies or public health activities being conducted under this MOU. This will allow for appropriate public, worker, and Native American Tribes' comments on the design and conduct of studies and public health activities.
- Obtain peer review and human subjects' review on all research projects involving human subjects under this MOU and proactively share information with DOE.
- Communicate information about studies and public health activities performed under this MOU based on a project-specific joint communication plan developed by these Agencies.

As mandated in CERCLA, ATSDR will:

- Prepare public health assessments, health consultations, public health advisories, and related documents for DOE sites; and
- Prepare toxicological profiles for those elements and radioactive isotopes that may have a public health impact at DOE sites.

C. DOE Office of Health Studies and CDC/ATSDR Joint Responsibilities

- Each year, consistent with the annual budget and appropriations cycle, CDC and DOE health scientists will evaluate any newly proposed research topics and public health activities. Evaluation criteria for proposed research and public health activities will be jointly established and will be based on public health benefits of the new projects with consideration of the programmatic needs of DOE.

Meritorious new projects will be added to the 5-year plan. The new project(s) will also be listed in the interagency agreement for the year in which the projects are scheduled to begin.

VI. Protection of Human Subjects

All projects conducted under this MOU that involve human subjects shall comply with Federal regulations and DOE Orders (45 CFR, part 46; 10 CFR, part 745; DOE Orders 443.1 and 481.1A) to protect human subjects. Additional guidance for health studies conducted under this MOU is detailed in Appendix 2 of the *Access Handbook: A Guide for Conducting Health Studies at the Department of Energy Sites*.

VII. Data Management

Records management issues are the core activity of all research studies and public health activities. The *Access Handbook: A Guide for Conducting Health Studies at Department of Energy Sites* was written by DOE as a tool to facilitate access to information needed for conducting public health activities at DOE sites. The handbook is intended for use by public health officials conducting studies and by personnel at DOE sites who are responsible for making the requested information available. To carry out studies and other public health activities, public health officials require access records and data in the custody of DOE and its contractors. DOE is committed to making records fully available for research and public health activities, taking into account legal requirements relating to privacy and classification.

A. DOE Office of Health Studies will:

- Provide HHS and its agents, who have appropriate security clearances, access to all DOE and DOE-owned facilities for the purpose of independently reviewing or collecting information or samples that HHS determines are necessary for conducting work under this MOU to the extent consistent with the Federal Privacy Act, DOE regulations and contracts, and agreements between DOE and its contractors.

- Coordinate DOE program, operations, and site offices, NNSA, and site points of contact to ensure that schedules and resources are in place for the efficient and timely review of documents and records by HHS and its agents as described in the *Access Handbook: A Guide for Conducting Health Studies at Department of Energy Sites*, Section 3, *Conducting a Project/Study or Public Health Activity at a DOE Site*.
- Continue to maintain documents, records, record systems, and other information sources for the conduct of epidemiologic research. The moratorium on the destruction of DOE and DOE-contractor records relevant to the conduct of epidemiological studies at DOE sites shall remain in effect.
- Revise current and future regulations, systems of records, and contracts and agreements, as necessary and appropriate, to accommodate use by HHS under this MOU.
- Declassify or downgrade necessary documents and data for use by HHS personnel with appropriate security clearances to conduct studies and public health activities as outlined in the *Access Handbook*, section 3, parts C, D, and E.

B. HHS will be responsible for:

- Managing all data collected by HHS employees, its contractors, grantees, and cooperative agreement holders, including data obtained from DOE and its contractors.
- Ensuring that any reviews of record systems containing personally identified data, undertaken as a basis for study project/protocol development, are reasonably limited in scope and duration and that information collected is directed to preparation of forms and procedures for use in such project/protocol plan(s).
- Maintaining the necessary Federal Privacy Act systems of records for information provided to HHS by DOE. This includes using or disclosing any personally identifiable information obtained from DOE or its contractors only as permitted by Federal law.

III. Release of Results

HHS, jointly with DOE, will promptly disseminate results obtained through work carried out under this MOU to the populations being studied in accordance with the Communication Plan. Communication of study results should include an objective public health message that is relevant to DOE workers and surrounding communities.

DOE's Office of Health is committed to openness and makes publicly available de-identified data on all studies conducted under this MOU. In order to achieve openness, upon completion of studies, CDC study data will be provided to CEDR, without personal identifiers, subject to the provisions of the Federal Privacy Act. All research grants, contracts, and cooperative agreements with HHS partners shall include a requirement to provide de-identified data to CEDR. Submission should be planned in advance to occur within 6 months of communicating the results of a study or project to DOE, workers, and labor. ATSDR routinely makes its reports available through its Web site and will provide an Internet link to CEDR.

IX. Administration of the MOU

A. Responsible Parties

HHS designates the following individuals as the official point of contact for this MOU:

Name: Director
Address: National Institute for Occupational Safety and Health
Washington, D.C. 20585
Telephone: 202-401-6997; Facsimile 202-205-2207

Name: Administrator, NCEH/ATSDR
Address: 1600 Clifton Road, NE, Atlanta, Georgia 30333
Telephone: 404-639-7000; Facsimile 404-639-7111

DOE designates the following individual as the official point of contact for this MOU:

Name: Assistant Secretary
Office of Environment, Safety and Health
Address: U.S. Department of Energy, Washington, D.C. 20585
Telephone: 202-586-6151; Facsimile 202-586-0956

B. Resources

This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds. The details of the levels of support to be furnished to one organization by the other with respect to funding will be developed in specific interagency agreements or other agreements.

C. Agencies' Roles

1. DOE will:

- Provide and transfer resources to CDC (NIOSH/NCEH) and ATSDR for the purpose of conducting public health activities under this MOU.
- Notify CDC (NIOSH/NCEH) and ATSDR of the amount requested and, at the earliest opportunity, notify HHS of the amount appropriated. Funds will be transferred annually through interagency agreements and statements of work that outline the planned activities for that fiscal year. Upon mutual agreement, resource levels may be amended at any time during the fiscal year.
- Obligate funds according to the established terms of this agreement and subject to the availability of appropriated funds.
- Operate according to the terms of the Anti-Deficiency Act (31 U.S.C. section 1341; see also section 145.6, OMB Circular Number A-11, issued July 2003).
- Manage the energy-related research program according to the provisions set forth in the interagency agreements.
- Forward CDC (NIOSH/NCEH) and ATSDR's requests for resources to conduct studies and public health activities to OMB for inclusion in the President's budget.

2. CDC (NIOSH/NCEH) and ATSDR will:

- Provide annually to DOE an updated 5-year plan and annual statement of work that provides a description and justification of the funding request for submission to OMB and Congress for studies and public health activities planned under this MOU. These submissions will be provided by CDC (NIOSH/NCEH) and ATSDR to DOE in an agreed upon timeframe that is consistent with DOE's budget cycle.
- Undertake new programs and activities if the mutually agreed level of resources is sufficient to achieve the intended goals and objectives of the programs or activities. Activities will be undertaken after all parties agree upon a level of resources to support the intended goals and objectives. If equipment is procured by CDC (NIOSH/NCEH) or ATSDR to provide service under this MOU, these Agencies will retain title to the equipment.
- Be responsible, in accordance with the Anti-Deficiency Act, for planning and prioritizing public health projects to ensure the continuity of work over short periods of time, such as during a Continuing Resolution.
- Provide DOE with monthly cost reports, as well as continue to provide complete fiscal and progress reports to DOE on a quarterly basis.
- Provide DOE with a formal letter report estimating anticipated carryover and justification for estimated uncosted amounts by the end of the third quarter of each fiscal year.
- Expend DOE-provided resources to minimize carryover of funds provided by DOE.

D. Compliance with CERCLA

This MOU is written with the understanding of both parties that this agreement is not intended to restrict, circumvent, or limit compliance with CERCLA, section 120 (42 U.S.C. § 9620), relating to the application of CERCLA to Federal facilities.

E. Duration of Agreement

This agreement, effective when signed by both parties, shall initially remain in effect through fiscal year 2009 unless amended by mutual, written consent of both parties or cancelled. At the end of the 5-year period, Agencies will consider desirability of renewing the MOU.

F. Obligation

This MOU is strictly for internal management purposes for both of the parties. It is not legally enforceable. It shall not be construed to create any legal obligation on the part of either of the parties or provide any private right or cause of action for or by any person or entity. It in no way restricts either of the parties from participating in any activity with other public or private Agencies, organizations, or individuals.

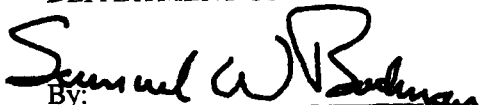
G. Commitment of Funds

This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

H. Modification or Cancellation

This MOU may be (1) amended by written agreement between parties; (2) terminated, either (A) by written agreement between the parties or (B) upon 90 days written notice by either party to the other. (Any party may terminate its participation in this agreement upon 90 days written notice to each of the other parties.)

DEPARTMENT OF ENERGY



By: Samuel W. Bodman, Secretary
Department of Energy
Date: March 14, 2005

DEPARTMENT OF HEALTH AND HUMAN
SERVICES

By: Michael O. Leavitt, Secretary
Department of Health and Human Services
Date:

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND THE
UNITED STATES DEPARTMENT OF ENERGY
FOR COOPERATION IN FUEL CELL AND HYDROGEN RESEARCH,
DEVELOPMENT, AND DEMONSTRATION**

Whereas, the Department of Energy (DOE), and the Department of Agriculture (USDA), hereinafter referred to as a "Party" or the "Parties," are jointly interested in increasing the effectiveness of their respective programs in areas of mutual interest;

Whereas, Congress directed the Parties to enter into a memorandum of understanding (MOU) to disseminate information and cooperate in the application of hydrogen and fuel cell technology programs for rural communities and agricultural producers (Farm Security and Rural Investment Act of 2002, Pub. L. No. 107-171, Title IX, § 9007, 116 Stat. 483 (May 13, 2002) ("FSRIA") or the "Act");

Whereas, increased effectiveness can best be achieved by establishing a MOU to provide a coordinated framework for collaborative efforts between the Parties;

Whereas, the DOE and USDA have research, development, and demonstration (RD&D) programs focused on advancing knowledge in the efficient use of energy, on developing energy from biomass, on developing technology for use of alternative sources and forms of energy, and specifically on advancing hydrogen and fuel cell technology;

Whereas, the potential for increased energy supply, and for environmental, and economic benefits of hydrogen and fuel cells, highlights the need for RD&D efforts to reduce the costs of producing hydrogen from biomass and other resources, to improve conversion efficiencies, to streamline processing, and to improve the economic competitiveness of hydrogen and fuel cells; and

Whereas, the Parties support the need for joint planning of RD&D programs in areas of mutual interest, and enhanced collaboration in the conduct of such programs;

Now, therefore, the Parties agree to the following:

**ARTICLE 1
OBJECTIVES AND AUTHORITY**

Consistent with the Administration's National Energy Policy, this MOU will establish a coordinated framework for collaborative RD&D efforts between the Parties in areas of mutual interest. Such collaboration shall be based on mutual benefit, equality and reciprocity, with each Party maintaining the responsibility for their respective RD&D programs. It is the intent of the

Parties to mutually support the formulation and execution of such RD&D programs as described in Article 2, Scope of Collaborative Activities.

This MOU is entered into by authority of FSRIA. The Act requires the Secretary of Agriculture and the Secretary of Energy to enter into a MOU under which the Parties shall cooperate in the application of hydrogen and fuel cell technology programs for rural communities and agricultural producers. In addition, the Act requires that under such MOU, the USDA shall work with DOE to disseminate information to rural communities and agricultural producers on potential applications of hydrogen and fuel cell technologies.

ARTICLE 2

SCOPE OF COLLABORATIVE ACTIVITIES

Collaboration under this MOU may include, but is not limited to, the following RD&D areas:

1. Advancement of energy efficient, economically competitive, and environmentally sound energy production from agriculture, forestry, and alternative and conventional energy resources through the use of hydrogen and fuel cell technologies, and the application of such technologies for agriculture, forestry, and other uses by means consistent with the Nation's goals of energy and food security; and
2. Improvement of energy efficiency through the use of hydrogen and fuel cell technologies in the production, processing, storage, distribution, and utilization of agricultural, forestry, and alternative and conventional energy resources.

ARTICLE 3

FORMS OF COLLABORATIVE ACTIVITIES

Collaboration under this MOU may include, but is not limited to, the following activities:

1. Exchange of information on RD&D program plans;
2. Consultations by senior policy and program officials for collaborative planning and execution of RD&D programs;
3. Exchange of scientists, engineers, analysts, and other specialists for participation in agreed upon activities conducted at facilities of the Parties, their contractors, or their cooperators;
4. Routine exchange of current scientific and technical information, including methodologies and results of ongoing RD&D activities;

5. Organization of seminars and other meetings on agreed upon topics;
6. Joint projects in which the Parties agree to share the RD&D analysis and benefits and responsibilities and/or costs; and
7. Dissemination of information to a broad range of rural communities and agricultural and forestry producers on potential applications of hydrogen and fuel cell technologies.

ARTICLE 4 MANAGEMENT

1. To facilitate the administration of this MOU, the Parties shall coordinate as a Working Group under the Hydrogen and Fuel Cell R&D Interagency Task Force as convened by the National Science and Technology Council (NSTC). The Working Group will plan for and implement the objectives of Article 1.
2. The Working Group will administer this MOU, negotiate Interagency Agreements (IAs), coordinate appropriate reviews of the ongoing research efforts under IAs, provide for distribution of technical progress reports, provide coordination of public information releases, and provide for the preparation of annual technology status reviews.
3. The Working Group will encourage communications among program officials responsible for each Party's RD&D efforts, and will inform the Biomass Research and Development Technical Advisory Committee of relevant Working Group activities.
4. When appropriate, the Parties will consult with representatives of public supported RD&D and technology transfer offices to obtain their effective participation in RD&D activities carried out under this MOU.
5. Each Party, either collectively or separately, may seek input from Federal and non-Federal stakeholders who have expertise in areas that are the subject of this MOU.

ARTICLE 5 INTELLECTUAL PROPERTY

The Parties shall agree upon specific intellectual property provisions for incorporation into each IA. Each Party will be responsible for complying with its own patent and technical data requirements.

ARTICLE 6 GENERAL PROVISIONS

1. Collaboration under this MOU will be in accordance with the applicable statutes and regulations governing the respective Parties.
2. Nothing in this MOU is intended to affect any other agreement or arrangement of the Parties in existence on the effective date of this MOU.
3. Subject to the Freedom of Information Act (5 U.S.C. 552), decisions on disclosure of information to the public regarding projects and programs implemented under this document will be made following consultation between the Parties.
4. Timely release of information gained under this MOU will be by mutual agreement of the Parties.
5. This Agreement is a master MOU under which work responsive to DOE needs will be undertaken by the USDA, and work responsive to USDA needs will be undertaken by the DOE.
 - A. Upon agreement of the lead liaison managers, supplements to this master MOU may be proposed for approval by the proper approving authorities of the DOE and the USDA.
 - B. Supplements will identify the responsible parties, funding, work to be performed, starting and ending dates, and other pertinent information.
 - C. This MOU and any supplements are not fiscal documents and shall not be used to obligate or commit funds, or as the basis for the transfer of funds. Nothing in this MOU authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value. Any transfer of funds is to be supported by the appropriate fiscal documents.
 - D. This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.
 - E. This MOU in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations, or individuals.

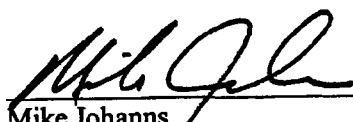
**ARTICLE 7
FUNDING**

Except when otherwise provided in an IA, and to the extent permitted by law, all costs resulting from cooperation under this MOU will be borne by the Party that incurs them. It is expressly understood that the ability of each Party to carry out its obligations under this MOU is subject to the availability of appropriated funds.

**ARTICLE 8
EFFECTIVE DATE AND TERMINATION**


This MOU will become effective upon the signature of both Parties and remain in effect for 5 years from the date of execution. This MOU may be extended or modified by mutual written agreement, and may be terminated at any time by either Party upon 90 calendar days written notice to the other Party.

Executed in duplicate on the dates indicated below:



Mike Johanns
Secretary of Agriculture

2-24-05
Date



Samuel Bodman
Secretary of Energy

4/15/05
Date



*U.S. Department of Energy
and the
National Science Foundation*



2005-006201

Memorandum of Understanding between
the U.S. Department of Energy
and
the U.S. National Science Foundation
concerning the
High Energy Physics Advisory Panel

Preamble

The Department of Energy (DOE) and the National Science Foundation (NSF) have been effective partners in establishing and maintaining U.S. leadership in the international study of high-energy physics (HEP). The agencies have expanded this partnership, building on the traditional strengths of both agencies to advance the course of high-energy physics into the 21st century. Since the original MOU was instituted in 2000, we have enhanced the function for the Federal advisory committee on high-energy physics (called the High Energy Physics Advisory Panel – HEPAP) to formally advise both the DOE and the NSF on the overall U.S. HEP program. This function has helped integrate the DOE and the NSF HEP efforts and has added value by increasing the effectiveness of the DOE/NSF partnership in this important research field. Further, the joint ownership of HEPAP by the DOE and the NSF has underscored the commitment of both agencies to support continued U.S. leadership in this forefront research.

An enhanced DOE and NSF research partnership has strengthened the historical roles of both agencies and has added important new components leading to a broader and more vigorous overall program. While the agencies do have overlap in their areas of expertise, there are areas where each is especially strong. The DOE will continue its role of stewardship for the national HEP program through its effective management of the National Laboratories, advancing research and development on technologies for future accelerators, and promoting technology transfer through public-private research partnerships. The NSF will continue its role of connecting HEP research to the public and other scientific disciplines through innovative outreach and crosscutting initiatives which exploit new technologies and emerging synergies between HEP and other fields (such as Astronomy, or Computer and Information Science). Together, DOE and NSF will continue to develop and diversify their shared role in nurturing the unparalleled U.S. university program in HEP experiment and theory. This program in turn produces the young scientists who will make the breakthroughs of the new century and greatly enhance the scientific and technical work force of the future.

From observations of stars, galaxies, and high-energy particles from space to experiments with man-made particle accelerators, the study of matter and energy and understanding their roles in shaping the universe has been one of the major scientific themes of the twentieth century. The new century promises many exciting new challenges, including understanding the origin of mass, the nature and origin of the highest-energy cosmic phenomena, why there is a predominance of matter over antimatter, and what fueled the Big Bang. To develop our fundamental understanding of the universe will require new ideas, new people, and new tools. The DOE/NSF partnership in HEP recognizes the challenges of the 21st century and will meet them with renewed energy. The joint ownership of HEPAP is an important step in that journey.

1. Introduction

The High Energy Physics Advisory Panel (HEPAP) has advised the Federal Government on the national program in experimental and theoretical high-energy physics (HEP) research since its inception in 1967. The Panel is currently chartered by the Department of Energy (DOE) and reports directly to its Associate Director for High Energy Physics, Office of Science, and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF, under the guidelines established by the Federal Advisory Committee Act (FACA), as amended, and its accompanying rules and regulations. The Panel activities include periodic reviews of the HEP program, recommendations of any desirable changes, and advice on long-range plans, priorities, and appropriate levels of funding.

The DOE and the NSF have enhanced their existing partnership in advancing HEP research by making HEPAP a dual-agency advisory committee. This joint ownership of HEPAP by the DOE and the NSF underscores the commitment of both agencies to work together to support continued U.S. leadership in this forefront research.

2. Purpose of the Memorandum of Understanding

It is the purpose of this DOE/NSF Memorandum of Understanding (MOU) to define the relationship between the two agencies relative to HEPAP. The MOU formalizes procedures for appointments of HEPAP members, the Chairperson and the Vice Chair, charges from the agencies to HEPAP for specific studies and advice, and sets the form and channels for HEPAP to report formally to the agencies.

3. Charter

The DOE and NSF have jointly developed the charter for HEPAP. The DOE will be responsible for periodically renewing the charter and ensuring that it conforms to the appropriate Federal regulations, with changes requiring joint agency concurrence.

4. Panel Membership and Appointments

The DOE and NSF Program Offices will continue to jointly recommend HEPAP membership, including the Chairperson and Vice Chair, following the protocols of their respective agencies, to the Secretary of Energy and the Director of the NSF. The Secretary of Energy and the Director of the NSF will jointly appoint panel members, including the Chairperson and Vice Chair. The term of membership will be approximately two to three years; members other than the Chairperson and the Vice Chair will normally not be reappointed. The Chairperson and Vice Chair may be reappointed for additional terms.

5. Subpanels

The Panel is occasionally requested to address major issues in the national HEP program or to formulate long-range plans for future research directions. To facilitate this function of the Panel, subpanels may be formed. The objective of the subpanels is to make recommendations to the parent Panel on the particular matters relevant to their charges. After approval by HEPAP, the subpanel

reports will be transmitted by HEPAP to the DOE and the NSF. Subpanel membership will include representatives from the current HEPAP membership. However, to ensure that the knowledge necessary to conduct these various studies will be available, membership may also include experts from the broad high-energy physics community.

6. Charges to the Panel

The DOE and the NSF will continue to jointly develop charges to HEPAP and its subpanels. The charges are transmitted to HEPAP jointly by the Associate Director for High Energy Physics, Office of Science, DOE, and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF. Either the DOE or NSF Program Office may initiate a request for HEPAP to conduct studies and provide advice on the national high-energy physics program. The formal charge to HEPAP to conduct the study will be issued as above.

7. Reporting

The Panel will report to the Associate Director for High Energy Physics, Office of Science, DOE, and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF. A primary form of reporting will be a letter from the Chairperson of HEPAP following each of the formal meetings of the Panel. The HEPAP Chairperson will convey special reports and studies from subpanels to the above-named officials after appropriate action by HEPAP. From time to time, the Chair of HEPAP may also be requested to make reports to the Secretary of Energy, the Director of the NSF, the National Science Board, the Office of Science and Technology Policy, or Congress.

8. Administration and FACA Requirements

The administration of HEPAP is an exception to strict joint ownership; DOE retains responsibility for all FACA requirements.

The Panel operates under DOE rules regarding implementation of the requirements imposed by FACA.

FACA legislation requires that each Federal advisory committee have a "Designated Federal Officer" (DFO) responsible for its operations. The DFO responsible for HEPAP is the Deputy Associate Director for High Energy Physics, Office of Science, DOE. The DFO may delegate the authority within the agencies when necessary. The DFO will ensure that HEPAP meetings are announced in the Federal Register.

The DFO appoints the Executive Secretary for HEPAP. In consultation with staffs of the DOE, the NSF, the HEPAP Chair and others, the Executive Secretary, with the concurrence of the DFO, will set details of the meeting agenda.

General logistical support services for HEPAP and its subpanels will reside with the DOE, with additional support provided by the NSF as needed and as appropriate.

9. Amendment and Termination

This MOU may be modified or amended by written agreement between DOE and NSF. This MOU may be terminated by mutual agreement, or by either party upon 90-day written notice to the other. Notices of amendment or termination will be signed by the Associate Director for High Energy Physics, Office of Science, DOE, and/or the Assistant Director, Mathematical and Physical Sciences Directorate, NSF, as appropriate. In the event of termination or should any amendment modify a charter provision, DOE will prepare an amended charter and take any further action required by FACA.

10. Funding

This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

11. Additional Terms

This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations or individuals.

This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

This MOU is effective when signed by both agencies.



Samuel W. Bodman
Secretary of Energy

Arden L. Bement, Jr.
Director, National Science Foundation

Date

Date



Department of Energy
Office of Science
Washington, DC 20585
June 14, 2005

ES 2005-006201

MEMORANDUM FOR THE SECRETARY

FROM:

Raymond L. Orbach
RAYMOND L. ORBACH
DIRECTOR
OFFICE OF SCIENCE

SUBJECT:

ACTION: Approve the Revised Memorandum of Understanding (MOU) Between the Department of Energy (DOE) and the National Science Foundation (NSF) concerning the High Energy Physics Advisory Panel (HEPAP)

ISSUE:

Revisions, mostly minor and editorial in nature, have been made to the original MOU by both the Department of Energy and the National Science Foundation. The only substantive revision is a change in the Federal Advisory Committee Act reporting requirement for DOE. In the original MOU, HEPAP reported to the Director of Science; in this revised MOU, it reports to SC's Associate Director for High Energy Physics.

BACKGROUND:

The MOU establishing HEPAP as a joint arrangement was originally approved on October 27, 2000 by Bill Richardson, Secretary of Energy, and Dr. Rita Colwell, Director of the National Science Foundation, to formally integrate the Agencies' high energy physics efforts and increase the effectiveness in this important research field.

DISCUSSION:

The joint DOE/NSF arrangement for HEPAP is working well. The revised MOU will continue the goal of both agencies to expand their partnership and will continue the commitment of both agencies to support U.S. leadership in this forefront research.

SENSITIVITIES:

There are no sensitivities expressed by the public, stakeholders, other government agencies or within the DOE.

POLICY IMPACT:

This action will not impact current DOE policy.

RECOMMENDATION:

That the Secretary of Energy and the Director of NSF sign the revised MOU.



RECOMMENDATION: That the Secretary of Energy and the Director of NSF sign the revised MOU.

APPROVE:

Samuel W. Buchanan

DISAPPROVE:

DATE:

JUL 11 2005

ATTACHMENT

CONCURRENCE:

Eric Fygi
Acting General Council

Eric Fygi 6-30-05

**Concurring for the Office of
General Counsel**

Susan J. Grant
Susan J. Grant, Director
Office of Management, Budget
and Evaluation/Chief Financial Officer

James M. Solit
James M. Solit
Committee Management Officer



*U.S. Department of Energy
and the
National Science Foundation*



2005-007951

Memorandum of Understanding between
the U.S. Department of Energy
and
the U.S. National Science Foundation
concerning the
Nuclear Science Advisory Committee

Preamble

The Department of Energy (DOE) and the National Science Foundation (NSF) have been effective partners in establishing and maintaining U.S. leadership in the international study of nuclear science. A goal for both agencies is to strengthen this partnership as the course of nuclear science advances in the 21st century. The two agencies have shared the direction of the Nuclear Science Advisory Committee (NSAC) since its inception in 1977, with each agency taking responsibility for alternate two-year periods. However, the advent of the internet has made it more convenient for one agency, the DOE, to continuously maintain the NSAC website. Furthermore, for continuity it is preferable for the charter to remain with one agency. We thus agree that the charter and website remain with the DOE, together with the responsibilities for organization and meeting logistics. The lead responsibility for the direction of NSAC itself, selecting members, putting together meeting agendas and developing charges will continue to be shared by the two agencies.

While the agencies do have overlap in their areas of expertise, there are areas where each is especially strong. The DOE maintains its role of stewardship for the national Nuclear Physics (NP) program through its effective management of the National Laboratories, advancing research and development of technologies for future accelerators, and promoting technology transfer through public-private research partnerships. The NSF has a special role of connecting NP research to the public and other scientific disciplines through innovative outreach and crosscutting initiatives which exploit new technologies and emerging synergies between NP and other fields (such as Astrophysics or Computer and Information Science). Together, DOE and NSF will develop and diversify their shared role in nurturing the U.S. university program in nuclear physics experiment and theory. This program in turn produces the young scientists who will make the future breakthroughs and greatly enhance the scientific and technical workforce of the future so important to the health and welfare of our Nation.

From observations of stars, galaxies, and high-energy particles from space to experiments with man-made particle accelerators as well as investigating radioactive decay, the study of matter and energy and understanding their roles in shaping the universe has been one of the major scientific themes of the twentieth century. The 21st century promises many exciting new challenges, including understanding the substructure of the nucleon and nuclear matter; creating and characterizing the properties of hot, dense nuclear matter; investigating new regions of nuclear structure and determining the reactions that created the nuclei of the chemical elements inside stars and supernovae; and determining the essential properties of neutrinos and the underlying fundamental symmetries of nature. To develop our fundamental understanding of the universe requires new ideas, new people, and new tools. The DOE/NSF partnership in NP recognizes the challenges of the 21st century and will meet them with renewed energy. The joint ownership of NSAC is an important element furthering the development of this important research frontier.

1. Introduction

The NSAC has advised the Federal Government on the national program in experimental and theoretical nuclear science since its inception in 1977. The Committee is chartered by DOE and reports to the DOE, Associate Director of the Office of Science for Nuclear Physics, and to NSF Assistant Director, Directorate for Mathematical and Physical Sciences, under the guidelines established by the Federal Advisory Committee Act (FACA), as amended, and its accompanying rules and regulations.

The Committee undertakes periodic reviews of the elements of the Nuclear Physics program; provides recommendations of desirable programmatic changes; and advises on long-range plans, priorities, and appropriate levels of funding for the nuclear physics research portfolio. The Committee formally reports to both agencies. This joint ownership of NSAC by the DOE and the NSF underscores the commitment of both agencies to work together to support continued U.S. leadership in this area of forefront research.

2. Purpose of the Memorandum of Understanding

It is the purpose of this DOE/NSF Memorandum of Understanding (MOU) to define the relationship between the two agencies relative to NSAC. The MOU formalizes procedures for appointments of NSAC members and the Chairperson, charges from the agencies to NSAC for specific activities or studies and advice, and sets the form and channels for NSAC to report formally to the agencies.

3. Charter

The DOE and NSF will jointly develop the charter for NSAC. The DOE will be responsible for periodically renewing the charter and ensuring that it conforms to the appropriate Federal regulations, with changes requiring joint agency concurrence.

4. Panel Membership and Appointments

The DOE and NSF Program Offices will jointly recommend NSAC membership, including the Chair, following the protocols of their respective agencies, to the Secretary of Energy and the Director of the NSF. The Secretary of Energy and the Director of the NSF will jointly appoint committee members, including the Chair. The term of membership will normally be up to three years. Members other than the Chair will normally not be reappointed. The Chair may be reappointed for additional terms.

5. Subcommittees

The Committee is occasionally requested to address major issues in the national NP program or to formulate long-range plans for future research directions. To facilitate this function of the Committee, subcommittees may be formed. The objectives of the subcommittees are to make recommendations to the parent Committee on the particular matters relevant to their charge. After approval by NSAC, the subcommittee reports will be transmitted by NSAC to the DOE and the NSF.

Subcommittee membership will include individuals from the current NSAC membership as well as others.

6. Charges to the Committee

The DOE and the NSF will jointly develop charges to NSAC and its subcommittees. The charges are transmitted to NSAC jointly by the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences. Either the DOE or NSF Program Office can initiate a request for NSAC to conduct studies and provide advice on the national nuclear science program. The formal charge to NSAC to conduct the study will be issued as described above.

7. Reporting

The Committee will report to the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences. A primary form of reporting will be a letter from the Chairperson of NSAC following each of the formal meetings of the Committee. The NSAC Chairperson will convey special reports and studies from subcommittees to the above-named officials after appropriate action by NSAC. From time to time, the Chair of NSAC may also be requested to make reports to the Secretary of Energy, the Director of the DOE Office of Science, the Director of the NSF, the National Science Board, the Office of Science and Technology Policy, other interested governmental organizations or Congress.

8. Administration and FACA Requirements

The administration of NSAC is an exception to strict joint ownership; DOE retains responsibility for all FACA requirements.

The Committee operates under DOE rules regarding implementation of the requirements imposed by FACA.

FACA legislation requires that each Federal advisory committee have a "Designated Federal Officer" (DFO) responsible for its operations. The DFO responsible for NSAC is the DOE Director of the Physics Research Division, Office of Nuclear Physics, Office of Science. The DFO may delegate authority in his/her absence, as appropriate. The DFO will ensure that NSAC meetings are announced in the Federal Register.

The DFO appoints the Executive Secretary for NSAC. In consultation with staffs of the DOE, the NSF, the NSAC Chair and others, the Executive Secretary, with the concurrence of the DFO, will set details of the meeting agenda. The Executive Secretary will keep minutes of the meetings.

General logistical support services for NSAC and its subcommittees will reside with the DOE, with additional support provided by the NSF as needed and as appropriate.

9. Resolution of Disagreements

Disagreements between the DOE and NSF staff related to NSAC issues, where concurrence cannot be resolved, will be transmitted to the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences, for resolution.

10. Amendment and Termination

This MOU may be modified or amended by written agreement between DOE and NSF. This MOU may be terminated by mutual agreement, or by either party upon 90-day written notice to the other. Notices of amendment or termination will be signed by the DOE Associate Director of the Office of Science for Nuclear Physics, and/or the NSF Assistant Director, Directorate for Mathematical and Physical Sciences, as appropriate. In the event of termination or should any amendment modify a

charter provision, DOE will prepare an amended charter and take any further action required by FACA.

11. Funding

This agreement does not create legal rights or obligations in either party, or obligate, commit, or transfer funds.

This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

12. Additional Terms

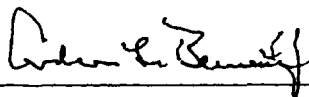
This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations or individuals.

This MOU is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

This MOU is effective when signed by both agencies.



Samuel W. Bodman
Secretary of Energy



Arden L. Bement, Jr.
Director, National Science Foundation

September 6, 2005

Date

September 8, 2005

Date



Department of Energy

Washington, DC 20585

August 9, 2005

ES2005-007951

MEMORANDUM FOR THE SECRETARY

FROM:

RAYMOND L. ORBACH
DIRECTOR
OFFICE OF SCIENCE

A handwritten signature in black ink, reading "Raymond L. Orbach", is written over the printed name and title of the Director of the Office of Science.

SUBJECT:

ACTION: Approval of the Memorandum of Understanding between the Department of Energy (DOE) and the National Science Foundation (NSF) concerning the joint DOE/NSF Nuclear Science Advisory Committee (NSAC) and transfer of lead responsibility to the DOE.

ISSUE:

The new Charter for NSAC has been approved and will become effective October 1, 2005. Along with the charter a change in the ownership arrangement between DOE and NSF regarding NSAC must be approved.

The DOE and the NSF have been effective partners in establishing and maintaining U.S. leadership in the international study of nuclear science. A goal for both agencies is to strengthen this partnership as the course of nuclear science advances in the 21st century. The two agencies have shared the direction of NSAC since its inception in 1977, with each agency taking responsibility for alternate two-year periods. However, the advent of the internet has made it more convenient for one agency, the DOE, to continuously maintain the NSAC web site. Furthermore, for continuity it is preferable for the charter to remain with one agency. Both agencies have concluded that the charter and web site should remain with DOE, together with the responsibilities for organization and meeting logistics. The lead responsibility for the direction of NSAC itself, selecting members, putting together meeting agendas and developing charges will continue to be shared by the two agencies.



It is the purpose of this DOE/NSF Memorandum of Understanding (MOU) to define the relationship between the two agencies relative to NSAC. The MOU formalizes procedures for appointments of NSAC members and the Chairperson, charges from the agencies to NSAC for specific activities or studies and advice, and sets the form and channels for NSAC to report formally to the agencies. The MOU is attached (Tab A) for your signature.

The NSAC continues to provide a necessary and effective source of advice to the DOE and NSF on the national nuclear science program. The advice of NSAC is essential in carrying out the best possible national program in nuclear science.

BACKGROUND:

The Committee meets about two to four times per year. The NSAC activities include: periodic review of the basic nuclear science research program; advice on program priorities and long-range plans and strategies for the national program; review of and recommendations on proposals for the construction of major new national research facilities and large capital equipment projects needed for the research program; review of major facility operations and the status of ongoing projects; advice on the continuation or termination of major projects, facility operations, and research programs; review and provide advice on performance measures and criteria for the DOE nuclear physics program; and pursuant to DOE and NSF requests, advice on any other issues related to the program.

The estimated annual operating cost of the Committee is \$160,000.

Since the Committee's inception in 1977, there have been a total of 98 meetings.

The advice and recommendations of the Committee will be needed through the two-year period following its charter renewal.

SENSITIVITIES:

None.

RECOMMENDATION: That the Secretary of Energy and the Director of NSF sign the MOU.

(1) Approve DOE/NSF joint ownership of the Nuclear Science Advisory Committee by signing the attached Memorandum of Understanding. (Tab A)

APPROVE:



DISAPPROVE:

DATE:

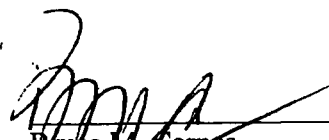
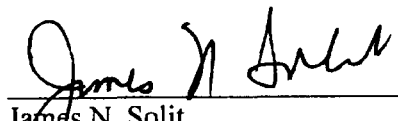
September 6, 2005

Attachments:

Tab A: Memorandum of Understanding

CONCURRENCE:

(see next page)
David R. Hill
General Counsel


Bruce M. Carnes
Director
Office of Management
James N. Solit
Committee Management Officer



August 8, 2006

**MEMORANDUM OF UNDERSTANDING
ON EARLY COORDINATION OF FEDERAL AUTHORIZATIONS AND RELATED
ENVIRONMENTAL REVIEWS REQUIRED IN ORDER TO SITE ELECTRIC TRANSMISSION
FACILITIES
AMONG**

THE DEPARTMENT OF ENERGY

THE DEPARTMENT OF DEFENSE

THE DEPARTMENT OF AGRICULTURE

THE DEPARTMENT OF THE INTERIOR

THE DEPARTMENT OF COMMERCE

THE FEDERAL ENERGY REGULATORY COMMISSION

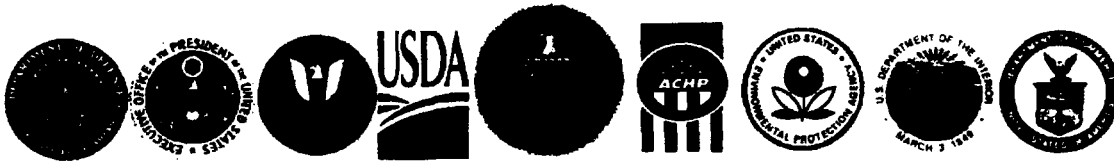
THE ENVIRONMENTAL PROTECTION AGENCY

THE COUNCIL on ENVIRONMENTAL QUALITY

THE ADVISORY COUNCIL on HISTORIC PRESERVATION

I. PURPOSE

With the signing of this Memorandum of Understanding ("MOU"), the Department of Energy, the Department of Agriculture, the Department of Defense, the Department of the Interior, the Department of Commerce, the Federal Energy Regulatory Commission, the Environmental Protection Agency, the Council on Environmental Quality, and the Advisory Council on Historic Preservation (hereinafter collectively referred to as the "Participating Agencies") commit to work together to meet each Agency's obligations under the Federal Power Act ("FPA"), as amended by subsection 1221(a) of the Energy Policy Act of 2005. *See* Federal Power Act, sec. 1221(a), § 216, 119 Stat. 594, 946-951 (2005) (to be codified as amended at 16 U.S.C. § 824p). Recognizing that the Department of Energy and the Federal Energy Regulatory Commission share the responsibility to facilitate implementation of subsection 216(h) of the FPA with the other Participating Agencies,



this MOU has been prepared to establish a framework for early cooperation and participation that will enhance coordination of all applicable land use authorizations, related environmental, cultural, and historic preservation reviews, and any other approvals that may be required under Federal law in order to site an electric transmission facility.

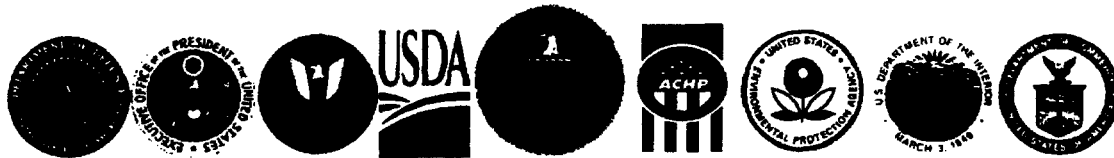
II. BACKGROUND

The Energy Policy Act of 2005, signed by President Bush August 8, 2005, declares that it is a national policy to enhance and, to the extent possible, to increase the coordination and communication among Federal agencies with authority to site electric transmission facilities. The policies set forth by Congress in subsection 216(h) of the FPA reinforce previous Administration policies announced by the President in Executive Order 13212 issued on May 18, 2001, by mandating each agency with authority to issue Federal authorizations to ensure the timely and coordinated review and permitting of electric transmission facilities.

The Department of Energy ("DOE"), pursuant to subsection 216(h) of the FPA, is responsible for "coordinating all applicable Federal authorizations and related environmental reviews" as may be required under Federal law in order to site an electric transmission facility. [216(h)(1)-(2)]. "In consultation with agencies responsible for Federal authorizations and, as appropriate, with Indian tribes, multistate entities, and State agencies that are willing to coordinate their own separate permitting and environmental reviews," the Secretary of Energy is directed to establish "binding intermediate milestones and ultimate deadlines for the review of, and Federal authorization decisions relating to, the proposed facility." [216(h)(4)(A)]. In addition, subsection 216(h) of the FPA directs the Secretary of Energy to establish a pre-application mechanism "for prospective applicants to confer with the agencies involved" prior to submitting a complete application and to prepare a single environmental review document in consultation with the Participating Agencies to be "used as the basis for all decisions on the proposed project under Federal law." [216(h)(4)(C), (5)(A)].

The Office of Electricity Delivery and Energy Reliability, within DOE, grants Presidential permits for the construction, operation, maintenance, and connection of electric transmission facilities at the United States international border pursuant to Executive Order 10485, as amended by Executive Order 12038. DOE issues permits pursuant to this authority if, after obtaining favorable recommendations from the Secretaries of State and Defense, it determines that the project is in the public interest.

The Federal Energy Regulatory Commission ("FERC") is responsible for processing and acting on applications for permits for the construction or modification of electric transmission facilities in National Interest Electric Transmission Corridors designated by the Secretary of Energy. The Secretary of Energy delegated to FERC the authority to act as the lead agency under subsection 216(h), subject to the restrictions contained in the delegation order, in instances when an applicant or a prospective applicant has submitted an application to FERC for the construction or modification of one or more electric transmission facilities pursuant to subsection 216(b) of the FPA. See



Department of Energy Delegation Order No. 00-004.00A. For purposes of this MOU, the term "DOE" shall be construed to include FERC, with respect to FERC's exercise of these delegated authorities under subsection 216(h) of the FPA.

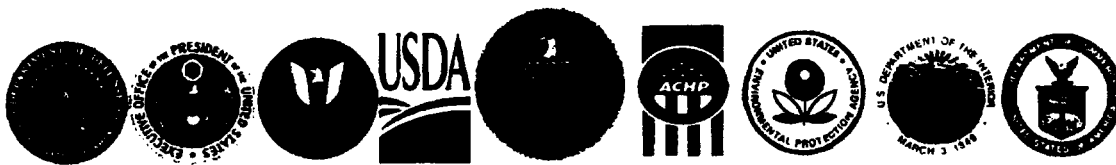
The Bureau of Land Management ("BLM"), within the Department of the Interior ("DOI"), is responsible for managing approximately 260 million acres of public lands. The BLM is responsible for issuing right-of-way grants authorizing electric transmission facilities on these lands. Title V of the Federal Land Policy and Management Act of 1976, as amended, provides the BLM the authority to issue right-of-way grants on the public lands for the generation, transmission, and distribution of electric energy.

The National Park Service ("NPS"), within DOI, is responsible for managing nearly 84 million acres in 390 units of the National Park System. The NPS mission is to preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. In addition to the National Park System, the NPS has some management responsibility over other areas, including the National Wild and Scenic Rivers System, National Trails System, National Heritage Areas, and the NPS Affiliated Areas, which are closely linked in importance and purpose to those areas directly managed by the NPS. The NPS may issue right-of-way permits only if the uses or activities are specifically authorized by Congress. One such authorization, the Act of March 4, 1911, provides the NPS the general authority to issue right-of-way permits on national park lands for electrical poles and lines for the transmission and distribution of electrical power.

The Bureau of Reclamation ("BOR"), within DOI, is responsible for managing, developing, and protecting water and related resources in an environmentally and economically sound manner in the interest of the public. The BOR may grant rights-of-way for electric transmission facilities and other uses where compatible with reclamation or power project purposes as authorized in Section 10 of the Act of August 4, 1939, as amended.

The Bureau of Indian Affairs ("BIA"), within DOI, is charged with the administration of federal Indian policy and the implementation of the federal trust responsibility for American Indians and American Indian Tribes. The BIA is responsible for, among other things, granting rights-of-way across lands held in trust for American Indians or American Indian Tribes. In addition, BIA and other federal agencies must consult with any Tribe that may be affected by a proposed right-of-way, as provided by Executive Order 13175, 65 Fed. Reg. 67,249 (Nov. 9, 2000).

The Fish and Wildlife Service ("FWS"), within DOI, is responsible for the conservation, protection, and enhancement of fish, wildlife, plants, and their habitats. The FWS has principal trust responsibility to protect and conserve migratory birds, threatened and endangered species, certain marine mammals, and jurisdictional fish. Applicants for electric transmission facility rights-of-way are required to consult with the FWS on projects potentially affecting any of these resources. The FWS manages the National Wildlife Refuge System and authorizes use by permit for lands within this System.



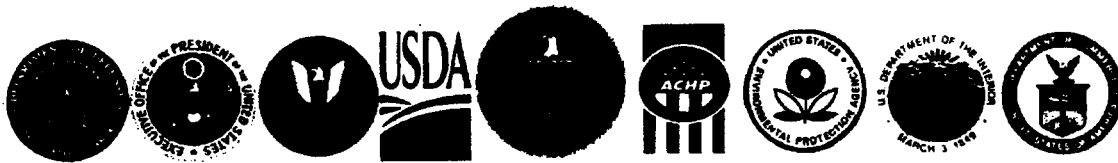
The Minerals Management Service ("MMS"), within DOI, is responsible for issuing and enforcing regulations to promote safe operations, environmental protection, and resource conservation on the Outer Continental Shelf ("OCS"). The MMS is responsible for granting leases, easements, or rights-of-way for electric transmission facilities pursuant to section 388 of the Energy Policy Act of 2005, through submerged lands of the OCS.

The Forest Service ("FS"), within the Department of Agriculture ("USDA"), is responsible for the management of 193 million acres of National Forest System ("NFS") lands. The FS is responsible for issuing special use authorizations for electric transmission facilities on NFS lands. Title V of the Federal Land Policy and Management Act of 1976, as amended, provides the FS the authority to issue authorizations on NFS lands for the generation, transmission, and distribution of electric energy.

The Department of Defense ("DoD") is responsible for providing the military forces needed to deter war and protect the security of the United States. The major elements of these forces are the Army, Navy, Air Force, and Marine Corps. Under the President, who is also Commander-in-Chief, the Secretary of Defense exercises authority, direction, and control over the Department, which includes the Office of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, three Military Departments, nine Unified Combatant Commands, the DoD Inspector General, fifteen Defense Agencies, and seven DoD Field Activities.

The Army Corps of Engineers ("USACE"), within DoD, is responsible for administering laws for the protection and preservation of waters of the United States, pursuant to the requirements of section 10 of the Rivers and Harbors Act ("RHA") of 1899, section 404 of the Clean Water Act ("CWA") of 1972, and section 103 of the Marine Protection, Research, and Sanctuaries Act ("MPRSA") of 1972. Under the RHA, the USACE may authorize work and/or structures in or affecting the course, condition, location, or capacity of navigable waters of the United States. Under the CWA, the USACE may authorize the discharge of dredged or fill material into waters of the United States, including wetlands, where the USACE determines the proposed action is the least environmentally damaging practicable alternative. Under the MPRSA, the USACE may authorize the transportation of dredged material excavated from navigable waters of the United States for the purpose of dumping it in ocean waters. USACE shall be considered a Participating Agency, where relevant, for purposes of this MOU.

The Environmental Protection Agency ("EPA") is responsible for administering a wide range of environmental laws. EPA responsibilities relevant to the siting of electric transmission facilities include, but are not limited to, commenting on an Environmental Impact Statement ("EIS") under section 309 of the Clean Air Act ("CAA"), the authority to participate in the section 404 Clean Water Act ("CWA") permit process and to restrict in certain circumstances the use of specific disposal sites for dredged or fill material pursuant to section 404 (c) and the authority to issue, and/or



review state- and tribe-issued permits under the CAA or for activities that involve discharges of pollutants subject to the requirements of the CWA National Pollutant Discharge Elimination System.

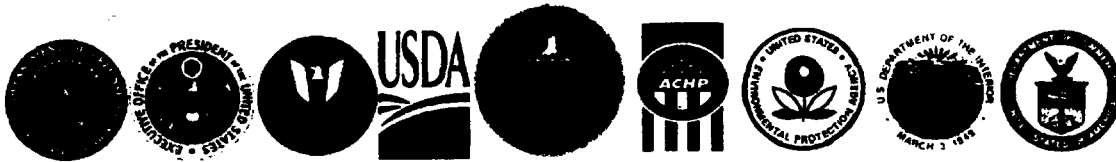
The National Oceanic and Atmospheric Administration ("NOAA"), within the Department of Commerce ("DOC"), is responsible for addressing a variety of impacts to marine and coastal ecosystems as mandated by several statutes and authorities. The siting of electric transmission lines in coastal and/or ocean areas may overlap with several NOAA responsibilities depending on the location and type of project proposed.

NOAA's National Marine Fisheries Service ("NMFS"), within DOC, is responsible for activities that include managing protected species, managing commercial and recreational fisheries, and protecting marine and coastal habitats. These activities are conducted pursuant to a number of environmental laws including the Endangered Species Act, Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, and the Fish and Wildlife Coordination Act. Federal agencies authorizing activities may be required to consult with NMFS regarding adverse effects to these resources and the habitats upon which they depend.

NOAA's National Ocean Service ("NOS"), also within DOC, is responsible for various coastal and ocean programs that may be relevant to obtaining federal licenses or permits for the siting of electric transmission lines. NOS administers the Coastal Zone Management Act ("CZMA") and approves, periodically reviews, and provides grants and technical assistance to states for purposes of implementing comprehensive Coastal Management Programs and National Estuarine Research Reserves. NOS also mediates certain disputes regarding CZMA issues. Under CZMA section 307(c)(3)(A), applicable states must concur with consistency certifications submitted with linear right-of-way applications and any other required applications for federal permits or licenses before Federal agencies can issue their approvals. NOS also manages designated National Marine Sanctuaries ("NMS") and coastal protection and restoration activities. Pursuant to section 304(d) of the National Marine Sanctuaries Act, Federal actions in or near NMS may require consultation with the Secretary of Commerce. NOS may also be able to provide technical assistance related to nautical charts, coastal observing stations, geographic information system ("GIS") capabilities, and tide and current information.

The Council of Environmental Quality ("CEQ") was established within the Executive Office of the President in 1969 by act of Congress as part of the National Environmental Policy Act ("NEPA"). Its principal purpose is to formulate and recommend national policies to promote the improvement of the quality of the environment. CEQ has issued regulations applicable to Federal agencies implementing NEPA (40 C.F.R. Parts 1500 through 1508).

The Advisory Council on Historic Preservation ("ACHP"), an independent Federal agency, was created by Title II of the National Historic Preservation Act of 1966 (NHPA), to advise the President and Congress on historic preservation matters and to administer the review process established by Section 106 of the Act. Under Section 106 Federal agencies are obligated to consider how their actions may affect historic properties included in or eligible for inclusion in the National Register of

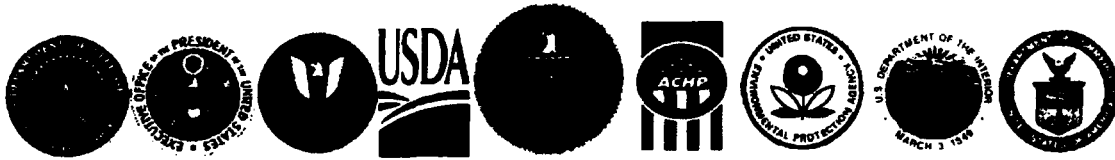


Historic Places and to afford the ACHP an opportunity to comment. These obligations are met by following the implementing regulations issued by the ACHP, "Protection of Historic Properties" (36 C.F.R. Part 800).

III. PARTICIPATING AGENCY COMMITMENTS

The Participating Agencies hereby commit, to the extent practicable, to early involvement and cooperation to ensure that timely decisions are made and that the responsibilities of each Participating Agency are met. The Participating Agencies commit to working together and, as appropriate, with Indian tribes, multistate entities, State agencies, and other interested persons in carrying out the provisions of subsection 216(h). In particular, the Participating Agencies agree to:

- A. Communicate and Coordinate Early. Within one week from the date a prospective applicant or an applicant submits a proposal to a Participating Agency that the Participating Agency believes is likely to require a federal authorization, as that term is defined in FPA subsection 216(h)(1), the Agency will assess its potential role in authorizing the proposed project and initiate contact with DOE and the other affected Participating Agencies if the project is (1) equal to or greater than 230 kV; (2) reasonably likely to require an EIS; or (3) reasonably likely to require more than one federal authorization. Once notified, DOE will consult with each relevant Participating Agency with a potential role in authorizing the proposed project to determine the appropriate level of coordination required for the proposed project. Those Participating Agencies contacted by DOE agree to cooperate with DOE to:
1. Coordinate their applicable Federal authorizations and environmental reviews relating to a proposed or existing facility. This coordination requires consultation, "as appropriate with Indian tribes, multistate entities, and State agencies that are willing to coordinate their own separate permitting and environmental reviews with the Federal authorization and environmental reviews." [216(h)(4)(A)].
 2. Adhere to "intermediate milestones and ultimate deadlines for the review of, and Federal authorization decisions relating to, the proposed [electric transmission] facility" as established by DOE in consultation with the relevant Participating Agencies and in accordance with applicable laws. [216(h)(4)(A)].
 3. Conduct timely reviews of applications for proposed transmission facilities within corridors designated under section 503 of the Federal Land Policy and Management Act (43 U.S.C § 1763 et seq.) by fully taking into account prior analyses and decisions relating to the corridors. [216(h)(5)(B)].
 4. Provide, as appropriate and available, to the applicant or the prospective applicant relevant studies, data (such as maps showing features over which the agency may have jurisdiction), and any other information concerning the status of matters the Participating Agency considers relevant, including matters that may be under consideration, such as proposing a



species for listing as endangered or threatened, or proposing an area for wilderness status. And

5. Identify the applicable statutory, regulatory, and policy responsibilities of that agency, and communicate that information to the applicant or the prospective applicant.

B. Participate During Application Discussions. Not later than sixty (60) days after receipt of a request for such information by an applicant, a prospective applicant, or DOE, each Participating Agency with a potential role in authorizing the proposed project will coordinate with DOE to provide information concerning:

1. The "key issues of concern to the [Participating] agencies and the public" that need to be addressed in order for that Agency to meet its obligations, and communicate those issues and concerns to the applicant or the prospective applicant. [216(h)(4)(C)(ii)]. And

2. The likelihood of approval for a potential facility. [216(h)(4)(C)(i)].

C. Communicate Informally. The Participating Agencies and principal contacts set forth in section VIII agree to informally communicate early and throughout the process to ensure that issues are raised as soon as possible and shared among all agencies. Each Participating Agency will identify one or more lead points of contact for a project if other than the principal contact. This point of contact will notify DOE at least 60 days prior to expiration of an intermediate or final deadline established by DOE pursuant to subsection 216(h)(4)(A) and/or (B). And

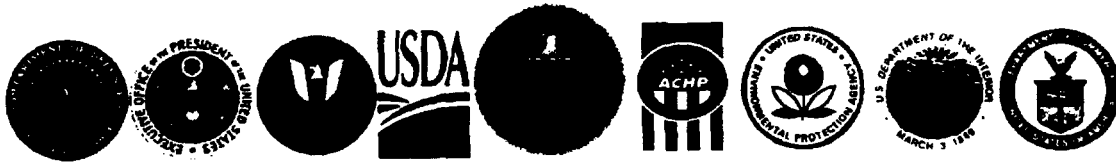
D. Share Information and Data. To the extent permitted by law and regulation, the Participating Agencies will share the information gathered, considered, and relied upon by each of them with all other relevant Participating Agencies. Specifically, the Participating Agencies, if determined to have potential roles in authorizing the proposed project, agree to:

1. Establish, maintain, and utilize, to the extent applicable, a single electronic source to store and display information pertaining to one or more authorizations potentially required to site an electric transmission facility. FERC's E-library is an example of one such source.

2. Cooperate and coordinate in the preparation of requests for studies or data, avoid duplicative requests, and compile consistent information on which all of the Participating Agencies will rely.

3. Cooperate in identifying and developing the information at the level of detail required to complete environmental and cultural resource project reviews.

4. Consult early and as often as needed with DOE and other applicable Participating Agencies and, as appropriate, Indian tribes, multistate entities, and State agencies regarding



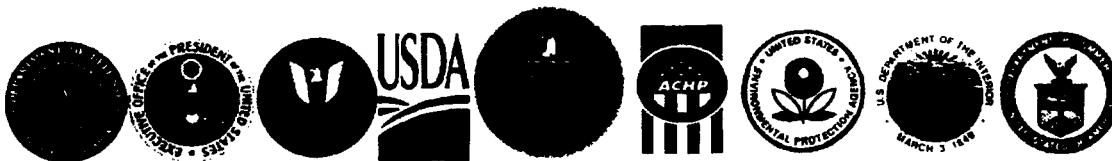
preparation of a single environmental review document to be "used as the basis for all decisions on the proposed [electric transmission] project." The single environmental review document shall "include consideration by the relevant agencies of any applicable criteria or other matters as required under applicable law." [216(h)(5)(A), (C)].

5. Consult early and as often as needed with DOE and other applicable participating Federal and State agencies regarding the sufficiency and data requirements of applications and pre-applications. [216(h)(4)(B)]. And

6. Notify the principal contact listed in section VIII for the relevant Participating Agencies and CEQ once any Participating Agency learns of an applicant or State's intent to appeal any matter under subsection 216(h)(6).

IV. SCOPE OF THE MOU

- A. This MOU cannot be used to obligate or commit funds or as the basis for the transfer of funds. Nothing in this MOU, in and of itself, requires any signatory agency to enter into any contract, grant, or interagency agreement. All provisions in this MOU are subject to the availability of funds.
- B. This MOU shall be modified or amended upon written request of any party hereto and the subsequent written concurrence of all parties.
- C. This MOU is to be construed in a manner consistent with all existing laws.
- D. This MOU neither expands nor is in derogation of those powers and authorities vested in the parties by applicable law.
- E. The Participating Agencies intend to fully carry out the terms of this MOU. All provisions in this MOU, however, are subject to available appropriations and agency resources.
- F. This MOU is strictly for internal management purposes of the parties. It is not a contract for acquisition of supplies or services, is not legally enforceable, and shall not be construed to create any legal obligation on the part of any of the parties, or any private right or cause of action for or by any person or entity.
- G. Participation in this MOU may be terminated sixty (60) days after providing written notice of such termination to the other Participating Agencies. Upon one party's unilateral withdrawal, this MOU shall remain in effect for other Participating Agencies unless all of the Participating Agencies unanimously agree to withdraw.



- H. The Participating Agencies will review this MOU every five years from the date the MOU takes effect and revise it as necessary.

V. DISPUTE RESOLUTION

If a dispute arises among the Participating Agencies regarding the terms or the implementation of this MOU, the following steps will be taken:

- A. The Participating Agency (through its principal contact(s) and/or points of contact(s) identified in section III(C) for projects) that seeks resolution will immediately (or within five working days) provide a written statement of the dispute, along with any rationale or supporting documents, to other relevant Participating Agencies and DOE in an attempt to arrive at a consensus and resolve the dispute.
- B. If no resolution is reached within ten working days of notification of the dispute, it will be elevated in writing, along with any rationale or supporting documents, to the principal contacts set forth in section VIII at the headquarters-level for the relevant Participating Agencies and CEQ.
- C. If consensus is not reached by the headquarters-level officials within fifteen working days of their receipt of the written statement of the dispute, the relevant Participating Agencies will promptly elevate the matter to their principal policy makers and the CEQ Chairman who will resolve the matter within twenty working days. And
- D. The time limits in the preceding paragraphs may be extended on the mutual agreement of the Participating Agencies that the period should be extended. Disputes will be resolved within sufficient time to enable completion of any environmental reviews by the deadlines established by DOE in consultation with the relevant Participating Agencies.

VI. SECURITY AND CLASSIFICATION

All applicable security classifications and guidelines shall apply. Before any classified work under this MOU is initiated, the Participating Agencies' representatives will establish appropriate security requirements/procedures.

All work undertaken pursuant to this MOU shall be coordinated among the Participating Agencies, and, when applicable, shall be subject to confidentiality requirements and exemptions from disclosure under the Freedom of Information Act, 5 U.S.C. § 552.



VII. AUTHORITIES

The Participating Agencies enter into this MOU under subsection 216(h) of the Federal Power Act, sec. 1221(a), § 216(h)(7)(B)(i), 119 Stat. 594, 946-951 (2005) (to be codified as amended at 16 U.S.C. § 824p).

VIII. PRINCIPAL CONTACTS

Each party hereby designates contacts as the initial principal contacts for the agency. [216(h)(7)(C)]. These contacts may be changed at the participating Agency's discretion upon written notice to the other participating Agencies. The following are the initial principal contacts for each agency:

DOE:	Director of the Office of Electricity Delivery and Energy Reliability
FERC:	Director of the Office of Energy Projects
DOC/NOAA:	Assistant Secretary of Commerce, Oceans and Atmosphere
DOC/NOAA/NMFS	Assistant Administrator, National Marine Fisheries Service
DOC/NOAA/NOS:	Assistant Administrator, National Ocean Service
DOD:	Director Installations Requirements and Management
DOD/USACE:	Assistant Secretary of the Army for Civil Works
EPA:	Director of Office of Federal Activities
DOI:	Principal Deputy Assistant Secretary, Land and Minerals Management
CEQ:	Associate Director for NEPA
USDA/FS:	Assistant Director of Lands, Forest Service
ACHP:	Director of Office of Federal Agency Programs

IX. DATE EFFECTIVE

This MOU shall take effect on the date of the last approving signature specified in section X.

X. SIGNATORIES

By: Samuel W. Bodman
SAMUEL W. BODMAN
SECRETARY OF ENERGY

Date: 7 Aug 06



By: 
KENNETH J. KRIEG
UNDER SECRETARY OF DEFENSE
ACQUISITION, TECHNOLOGY & LOGISTICS


Date: 8/4/06

By: 
MIKE JOHANNNS
SECRETARY OF AGRICULTURE

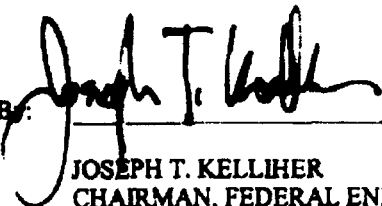
Date: AUG 3 2006

By: 
DIRK KEMPTHORNE
SECRETARY OF THE INTERIOR

Date: AUG 04 2006

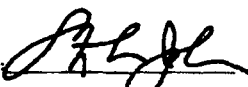
By: 
CARLOS M. GUTIERREZ
SECRETARY OF COMMERCE

Date: 8/8/06

By: 
JOSEPH T. KELLIHER
CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

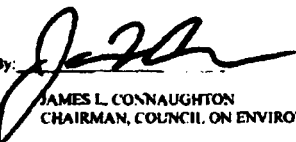
Date: 7/17/06



By: 

Date: JUL 18 2006


STEPHEN L. JOHNSON
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

By: 

Date: 2/21/06

JAMES L. CONNAUGHTON
CHAIRMAN, COUNCIL ON ENVIRONMENTAL QUALITY

By: 

Date: 

JOHN L. NAU III
CHAIRMAN, ADVISORY COUNCIL ON HISTORIC PRESERVATION



**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENTS OF ENERGY, DEFENSE, AGRICULTURE, AND INTERIOR
REGARDING ENERGY RIGHT-OF-WAY CORRIDORS ON FEDERAL LANDS**

February 2006

I. PURPOSE

With the signing of this Memorandum of Understanding (MOU), the Department of Energy, the Department of Agriculture, the Department of the Interior and the Department of Defense (hereinafter collectively referred to as the "Agencies") commit to work together to meet each Agency's obligations under Sections 368 and 372 of the Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 368, 372, 119 Stat. 727-728, 734-735 (2005) (hereinafter "EPAAct 2005"). These Sections require the Agencies to coordinate all applicable Federal authorizations and environmental reviews related to energy right-of-way corridor planning and energy right-of-way administration for proposed or existing utility facilities. The intent of this MOU is to delineate certain of the Agencies' duties under these Sections.

II. BACKGROUND

Section 368 of EPAAct 2005 requires the Secretaries of Energy, Agriculture, Defense, and the Interior to consult with one another, and with the Federal Energy Regulatory Commission (FERC), States, Tribal and/or local units of government, affected utilities, and other interested persons to:

1. Designate, under their respective authorities, corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on Federal land in the eleven contiguous western states (as defined in 43 U.S.C. §1702(o)) (*see* EPAAct 2005 §368(a)(1), 119 Stat. 727);
2. Perform any environmental reviews that may be required to complete the designation of such corridors (*see* EPAAct 2005 §368(a)(2), 119 Stat. 727); and,
3. Incorporate the designated energy right-of-way corridors into the relevant Agency land use and resource management plans or equivalent plans (*see* EPAAct 2005 §368(a)(3), 119 Stat. 727).



To ensure that the energy right-of-way corridor planning¹ and designation process takes place in a systematic, publicly transparent and environmentally responsible manner, the Agencies will conduct all environmental reviews required by Federal law, including the National Environmental Policy Act (NEPA). Prior environmental analyses undertaken during previous corridor designation processes shall be taken into account when reviewing applications to construct or modify oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities within such corridors.

Section 368 of EPLA 2005 recognizes that cooperation and participation among the signatories to this MOU is essential to proper energy corridor planning in the eleven western states and throughout the nation. The Agencies will ensure that additional energy right-of-way corridors will be promptly identified and designated as necessary and will expedite applications to construct or modify oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities within these corridors. The Agencies shall take into account the need for upgraded and new electricity transmission and distribution facilities to improve reliability, relieve congestion, and enhance the capability of the national grid to deliver electricity.

Section 372 of EPLA 2005 addresses energy rights-of-way on federal lands and requires the Agencies to coordinate all applicable Federal authorizations and related environmental reviews relating to a proposed or existing utility facility. That Section also requires the Agencies to include in a MOU provisions that—

1. Establish a unified right-of-way application and an administrative procedure for processing right-of-way applications (*see* EPLA 2005 §372(a)(2)(A)(i)-(ii), 119 Stat. 735);
2. Provide for coordination of planning relating to the granting of the rights-of-way (*see* EPLA 2005 §372(a)(2)(B), 119 Stat. 735);
3. Provide for an MOU among the affected Federal agencies to prepare a single environmental review document to be used as the basis for all Federal authorization decisions (*see* EPLA 2005 §372(a)(2)(C), 119 Stat. 735); and
4. Provide for coordination of use of right-of-way stipulations to achieve consistency (*see* EPLA 2005 §372(a)(2)(D), 119 Stat. 735).

¹ For the purposes of this MOU, energy right-of-way corridor planning includes, but is not limited to, the identification and analysis of energy right-of-way corridors. The Agencies will consider national and State land use policies, environmental quality, economic efficiency, national security, safety, and good engineering and technological practices when designating energy right-of-way corridors.



III. AGENCY RESPONSIBILITIES

a. General

The Agencies hereby agree to cooperate to ensure that timely decisions are made and that the responsibilities of each Agency are met. The Agencies agree to work with Federal, State, Tribal and local governments as appropriate, affected utility industries, and other interested persons in carrying out the provisions of Sections 368 and 372. In particular, the Agencies agree to:

1. Coordinate all applicable federal land authorizations and environmental reviews relating to a proposed or existing facility. In addition, the Agencies will coordinate preparation of a programmatic environmental impact statement (PEIS) that will address the environmental effects of designating energy right-of-way corridors. The PEIS will be used to support each Agency's Record of Decision (ROD) when the Agency designates an energy right-of-way corridor. See EPLaw 2005 § 368(a), 119 Stat. 727.
2. Establish a unified right-of-way application form and an administrative procedure for processing right-of-way applications, including lines of authority, steps in application processing, and timeframes for application processing. See EPLaw 2005 § 372(a)(2)(A), 119 Stat. 735.
3. Coordinate planning related to granting rights-of-way.
4. Coordinate use of right-of-way stipulations to achieve consistency. See EPLaw 2005 § 372(a)(2)(D), 119 Stat. 735. A unified right-of-way grant form shall contain agreed-upon terms and conditions so that rights-of-way crossing land managed by more than one Federal Agency can be processed in a unified manner. See EPLaw 2005 § 372(a)(2)(D), 119 Stat. 735. For purpose of this MOU, BLM and FS hereby stipulate to the following definitions:
 - A. *Energy Right-of-Way Corridor*: A parcel of land with specific boundaries identified by law, Secretarial order, the land use planning process, or by other management decisions as a preferred location for energy-related facilities and infrastructures. The corridor may be designated as suitable to accommodate one or more than one type of energy use or facility. A designated energy right-of-way corridor under Section 368 may already be occupied by existing utility facilities.
 - B. *Right-of-Way*: An easement, lease, permit, or license to occupy, use, or traverse public lands granted for transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced



therefrom or hydrogen, or for systems for the generation, transmission, and distribution of electric energy. 43 U.S.C. § 1761(a)(4).

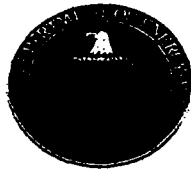
C. *Energy Right-of-Way Application:* An application for an energy right-of-way seeking an authorization for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, any refined product produced therefrom, or hydrogen, or for systems for the generation, transmission, or distribution of electric energy. An application need not be limited to a facility that would be located within a corridor.

5. Consult with the Secretary of Commerce when designating energy right-of-way corridors and expediting energy right-of-way applications;
6. Notify each Agency within one month from the date an Agency receives an energy right-of-way application. See EPAct 2005 § 372(a)(2)(B), 119 Stat. 735. Such notification shall contain the date the Agency received the energy right-of-way application, a summary of the requests made in the application and the anticipated timeframe required to process the application. Notification within one week of receipt of the application is required if the Agency receiving the energy right-of-way application determines that the right-of-way sought by the application will cross or intersect Federal land administered by another Agency.
7. Review the progress made by each Agency under this MOU every five years.

b. Department of Energy

The Department of Energy ("DOE") shall serve as the lead Agency and will furnish a project manager to direct and facilitate all activities required to successfully implement energy corridor planning and analysis on Federal lands, including the production of a PEIS, first for the eleven western states and then for the remaining States. In addition, DOE will:

1. Provide access to and make available relevant data and other necessary information to evaluate corridor paths;
2. Provide a list of contacts in the state and regional offices and other management units and assist in making these contacts available; and
3. Provide appropriate technical staff to produce the PEIS and provide management oversight/review throughout the project.



c. Department of the Interior, Bureau of Land Management

The Bureau of Land Management ("BLM") shall serve as co-lead and will furnish an assistant project manager who will support the DOE project manager. BLM will apply its planning regulations in amending its resource management plans. In addition, the BLM will:

1. Provide information regarding the status of existing land use plans and associated NEPA documents and identify land use plans to be amended;
2. Provide access to and make available relevant data and other necessary information to evaluate corridor paths;
3. Provide a list of contacts in the State Offices and other management units and assist in making these contacts available as needed;
4. Provide appropriate staff and management oversight/review throughout all projects;
5. Incorporate any designated corridor into the relevant BLM resource management plan; and
6. Coordinate with other Interior Department land management agencies and tribal entities, as appropriate, with respect to any corridors that may involve other federal or tribal lands.

d. Department of Agriculture, United States Forest Service

The United States Forest Service ("USDA FS") shall serve as a cooperating agency and shall furnish an assistant project manager to support the DOE project manager. In addition, the USDA FS will:

1. Provide information regarding the status of existing land use plans and associated NEPA documents and identify land use plans to be amended;
2. Provide access to and make available relevant data and other necessary information to evaluate corridor paths;
3. Provide a list of contacts in each of the Regional Offices and other management units and assist in making these contacts available;



4. Provide appropriate staff and management oversight/review throughout the project; and
5. Incorporate any designated corridor into the relevant USDA FS Land and Resource Management Plan.

e. Department of Defense

The Department of Defense (DoD) will serve as a cooperating agency in the preparation of the Energy Corridor Programmatic EIS, and will work closely with the DOE project manager. In addition, the DoD will:

1. Provide relevant information concerning current and projected military use of lands under DoD jurisdiction or control;
2. Provide access to existing NEPA documents and installation Integrated Natural Resource Management Plans ("INRMPs") related to lands under DoD jurisdiction or control;
3. Provide baseline environmental data as needed to evaluate proposed energy right-of-way corridors, provided the DoD determines that any such energy corridor may be designated on lands under DoD jurisdiction or control without compromising safety, security, or DoD's use of its lands as it deems necessary for military testing, training, and operations;
4. Provide a list of contacts in each of its Regional Environmental Coordinator offices and, as needed, at its military installations, and assist in making these contacts available;
5. Provide appropriate staff and management oversight/review throughout the project; and
6. Incorporate any designated energy right-of-way corridors into the relevant INRMPs.

IV. SCOPE OF THE MOU

1. Nothing in this MOU obligates the participating Agencies to expend appropriations or enter into any contract or other obligation.
2. This MOU may be modified or amended upon written request of any party hereto and the subsequent written concurrence of all parties.



3. This MOU is to be construed in a manner consistent with all existing laws and regulations.
4. This MOU neither expands nor is in derogation of those powers and authorities vested in the parties by applicable law, statutes or regulations.
5. The parties intend to fully carry out the terms of this MOU. In addition, this MOU does not limit the ability of any of the participating Agencies to review and respond to applications submitted by any organization or member of the public.
6. This MOU is strictly for internal management purposes of the parties. It is not a contract for acquisition of supplies or services, is not legally enforceable, and shall not be construed to create any legal obligation on the part of any of the parties, or any private right or cause of action for or by any person or entity.
7. Participation in this MOU may be terminated sixty (60) days after providing written notice of such termination to the other participating Agencies. Upon one party's unilateral withdrawal, this MOU shall remain in effect unless all of the participating Agencies unanimously agree to withdraw.
8. The Agencies will review this MOU every 5 years.

V. SECURITY AND CLASSIFICATION

All applicable security classifications and guidelines shall apply. Before any classified work under this project is initiated, the Agencies' representatives will establish appropriate security requirements/procedures.

Any disclosure of information to the public subject to the Freedom of Information Act, 5 U.S.C. § 552, regarding work undertaken pursuant to this MOU shall be coordinated between the Agencies.

VI. AUTHORITIES

The Department of Energy derives its authority to enter into this MOU under the Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 368, 372, 119 Stat. 727-728, 734-735 (2005), and the Department of Energy Organization Act of 1977, 42 U.S.C. § 7101 et seq. as amended.



The Department of the Interior derives its authority to enter into this MOU under the Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 368, 372, 119 Stat. 727-728, 734-735 (2005), and the Federal Land Policy and Management Act, 43 U.S.C. §1737(b).

The Department of Agriculture derives its authority to enter into this MOU under the Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 368, 372, 119 Stat. 727-728, 734-735 (2005), and 16 U.S.C. §§528-531, 551.

The Department of Defense derives its authority to enter into this MOU under the Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 368, 372, 119 Stat. 727-728, 734-735 (2005), and 10 U.S.C. §2668, and the Sikes Act 16 U.S.C. §§670a-670f.

VII. PRINCIPAL CONTACTS

Each party hereby designates contacts as the initial principal contacts for the agency. These contacts may be changed at the participating Agency's discretion upon notice to the other participating Agencies. The following are the initial principal contacts for each agency:

Julia Souder	julia.souder@hq.doe.gov	202-586-5461
Scott Powers	scott_powers@blm.gov	406-896-5319
Ron Montagna	ron_montagna@blm.gov	202-452-7782
Bob Cunningham	rcunningham@fs.fed.us	202-205-2494
John Allen	john.allen@osd.mil	703-681-5411

VIII. DATE EFFECTIVE

This MOU shall take effect on the date of the last approving signature.



SIGNATORIES

ACCEPTANCE FOR THE DEPARTMENT OF ENERGY:

By: Clay Sell

Clay Sell, Deputy Secretary

Date: 1-30-2006

ACCEPTANCE FOR THE DEPARTMENT OF AGRICULTURE:

By: Mark Rey

Mark Rey, Under Secretary

Date: 2/5/06

ACCEPTANCE FOR THE DEPARTMENT OF THE INTERIOR:

By: P. Lynn Scarlett

P. Lynn Scarlett, Deputy Secretary

Date: 2/8/06

ACCEPTANCE FOR THE DEPARTMENT OF DEFENSE:

By: Kenneth Kregg

Kenneth Kregg, Under Secretary of Defense for Acquisition, Technology and Logistics

Date: 7 February 2006



Department of Energy
National Nuclear Security Administration
Washington, DC 20585
March 7, 2006

2006-002422

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM: LINTON F. BROOKS
ADMINISTRATOR

A handwritten signature in black ink, appearing to read "L. Brooks", is written over the printed name "LINTON F. BROOKS".

SUBJECT: ACTION: Grant authorization to sign the attached Memorandum of Understanding between the Department of Energy of the United States of America and the Australian Radiation Protection and Nuclear Safety Agency Concerning Cooperation in the Area of Security of Radioactive Sources and Emergency Management.

ISSUE: To seek approval for Linton Brooks or his delegate to sign the Memorandum of Understanding (MOU) to enhance the existing level of cooperation between the Governments of the United States and Australia in radioactive source security and emergency response.

BACKGROUND: The mission of NNSA's Office of the Global Threat Reduction's International Radiological Threat Reduction program is to locate, identify, recover, consolidate, and enhance the security internationally of high-risk radiological materials that could be used in an RDD. And in implementing this mission, NNSA has been cooperating with the Australian Nuclear Science and Technology Organization (ANSTO) to enhance radioactive source security in Southeast Asia.

In an effort to enhance the existing level of cooperation between the Governments of the United States and Australia in radioactive source security and emergency response, NNSA now proposes to conclude an agreement with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), for the purposes of exchanging information and know-how and to work on areas of mutual interest related to security of radioactive sources and emergency response.



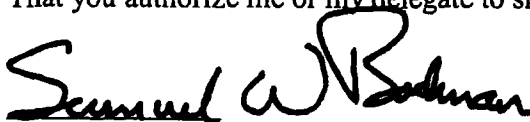
SENSITIVITIES: The Australian Government has requested that the MOU be signed on March 10, 2006, in Washington, when the CEO of ARPANSA will meet with Jerald Paul, Deputy Administrator for Defense Nuclear Nonproliferation.

POLICY IMPACT: None.

CONTACT: Andrew Bieniawski, Assistant Deputy Administrator for Global Threat Reduction, x 6-0775.

RECOMMENDATION: That you authorize me or my delegate to sign the MOU.

APPROVE:

A handwritten signature in black ink, appearing to read "Samuel W. Bodman". The signature is written in a cursive, flowing style.

DISAPPROVE:

DATE:

3/9/06

Attachment:

Proposed Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
Between the
DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
and the
AUSTRALIAN RADIATION PROTECTION
AND NUCLEAR SAFETY AGENCY
CONCERNING COOPERATION IN THE AREA OF SECURITY OF RADIOACTIVE
SOURCES AND EMERGENCY MANAGEMENT

The Department of Energy of the United States of America (DOE) and the Australian Radiation Protection and Nuclear Safety Agency (APRANSA) (hereafter called "the Participants"),

Sharing a desire to cooperate in areas of mutual interest related to security of radioactive sources and emergency management,

Have reached the following understanding:

1. Areas of Cooperation
 - 1.1 Cooperation under this Memorandum of Understanding (Memorandum) may include but is not limited to:
 - 1.1.1 development and review of model regulations for the security of radioactive sources;
 - 1.1.2 development and review of a methodology for implementing model regulations for the security of radioactive sources;
 - 1.1.3 development and review of national risk analysis methodology relating to threats, vulnerability, and protection of radioactive sources;
 - 1.1.4 development of registers or inventories related to the security of radioactive sources;
 - 1.1.5 development of systems for identifying and tracing radioactive sources by electronic and other means;
 - 1.1.6 comparison of national strategies for gaining or regaining control over orphan sources;

- 1.1.7 development and review of operational-level techniques and procedures for identifying, locating, and securing orphan sources;
 - 1.1.8 development and review of operational-level techniques and procedures relating to the operation aspects of each Participant's civilian domestic radiation emergency management;
 - 1.1.9 development and review of operation integration to other emergency management organizations at the domestic level;
 - 1.1.10 review of modeling the misuse of radioactive material, including explosive and passive dispersal;
 - 1.1.11 establishment of joint and/or co-operative training and development opportunities at the operational and strategic levels in emergency management and security of radioactive sources;
 - 1.1.12 other areas of cooperation as the Participants may mutually determine in writing.
- 1.2 For purposes of this Memorandum, "radioactive sources" and "orphan sources" have the meaning set forth in the International Atomic Energy Agency's Code of Conduct on the Safety and Security of Radioactive Sources (2004).
2. Forms of Cooperation
- 2.1 The forms of cooperation under this Memorandum may include:
- 2.1.1 exchange and provision of unclassified scientific and technical information;
 - 2.1.2 exchange and provision of equipment, samples, material for testing;
 - 2.1.3 fellowship visits and short-term secondment of a Participant's staff to facilities of the other Participant, relating to emergency management and security of radioactive sources;
 - 2.1.4 such other forms of cooperation as the Participants jointly determine.
- 2.2 If the Participants desire to undertake a joint project in which they intend to share the costs or which may result in the creation of intellectual property, the Participants will conclude an appropriate arrangement therefor, addressing such matters as technical scope, management, cost-sharing, the protection and allocation of intellectual property, and schedule.

3. Dissemination of Non-Proprietary Information

Scientific and technological information of a non-proprietary nature arising from cooperative activities under this Memorandum should be made available to the world scientific community through customary channels, in accordance with the laws, regulations and procedures of each Participant's country.

4. Management

The Participants hereby establish a Joint Steering Committee (JSC), consisting of an equal number of representatives of each Participant, to supervise the activities conducted under this Memorandum. Unless otherwise jointly determined, the JSC should meet at least annually, alternately in the United States and in Australia.

5. General Provisions

- 5.1 Cooperation under this Memorandum may commence upon signature and continue unless terminated in accordance with Paragraph 5.3.
- 5.2 The terms of this Memorandum may be revised at any time in writing by the Participants.
- 5.3 If either Participant wishes to cease its activities under this Memorandum, it should give ninety days' advance written notice to the other Participant.
- 5.4 This Memorandum does not create any legally binding obligations between the Participants.
- 5.5 It is understood that each Participant is responsible for the costs it incurs in implementing this Memorandum. The ability of each Participant to undertake the activities contemplated by this Memorandum is subject to the availability of appropriated funds, personnel and other resources.
- 5.6 All activities of each Participant should be carried out in accordance with the laws and regulations of that Participant's government and applicable international agreements to which that Participant's government is party.

Signed at _____, this _____ day of _____, 2006, in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE AUSTRALIAN RADIATION
PROTECTION AND NUCLEAR
SAFETY AGENCY:

Memorandum of Understanding
Between
The U.S. Department of Energy
And
The U.S. Department of the Interior
To
Deploy and Promote Efficient and Renewable Energy
Technologies Throughout America's National Parks

I. Purpose

With the signing of this Memorandum of Understanding (MOU), the U.S. Department of Energy (DOE) and the U.S. Department of the Interior (DOI) officially agree to coordinate and dedicate resources to promote and accelerate the use of energy-efficient and renewable energy technologies and practices in our national parks, and to educate the visiting public about these efforts.

II. Premise

The national parks are ideal places to showcase the Federal Government's commitment to both promoting energy-efficient and renewable energy technologies and practices, and reducing the environmental impacts associated with pollution and global climate change. Furthermore, the concept of educating the public about energy use conforms nicely with the overall National Park Service mission of protecting our Nation's natural and cultural resources and interpreting the significance of those resources for all Americans. Likewise, DOE is well-positioned to demonstrate for the American public and private industry the opportunities that currently exist to accelerate the transition to a sustainable energy future.

III. Background

In preparation for the National Park Service's 100th anniversary in 2016, President George W. Bush on August 24, 2006, launched the "Centennial Initiative," calling for Americans to work together to prepare our national parks for another century of conservation, preservation, and enjoyment. In doing so, the President directed Secretary of the Interior Dirk Kempthorne to identify major goals and signature programs throughout America's National Park System that should be accomplished by 2016.

In response, the National Park Service began an extensive effort to reach out to people to listen to their hopes and ideas for the future of America's national parks. By sharing their thoughts

through face-to-face listening sessions, a website, and written comments, Americans helped shape the report made to the President.

On May 31, 2007, Secretary Kempthorne delivered the report to the President – “The Future of America’s National Parks.” The goals laid out in that report emerged from several themes, many of which have mutual interest to DOE’s efforts to promote and accelerate the use of efficient and renewable energy technologies.

Furthermore, on January 24, 2007, President George W. Bush signed an Executive Order 13423: “Strengthening Federal Environmental, Energy, and Transportation Management.” In that Executive Order, the President called for Federal agencies to “conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.”

The DOE-DOI energy partnership will help both agencies fulfill the ideas expressed by Americans in The Future of America’s National Parks report, the actions called for by the President in the January 24, 2007 Executive Order, and, more broadly, the provisions in the Energy Policy Act of 2005.

IV. Specific Goals

To fulfill the purpose of this agreement, DOE and DOI will work together to:

- Identify opportunities in national parks to expedite existing efforts to deploy and promote efficient and renewable energy technologies;
- Identify key opportunities to initiate the deployment and promotion of efficient and renewable energy technologies in our national parks;
- Prioritize key deployment and promotional opportunities based on the greatest impact for reducing energy use and ability to utilize and promote renewable energy technologies in national parks areas; and
- Develop new and expand existing partnerships with the academic, non-profit, and private sectors, as appropriate, to help deploy and promote the use of energy efficiency and renewable energy technologies in national parks.

V. Authority

The Department of Energy enters into this Agreement under the authority of section 646 of the; Department of Energy Organization Act (Pub. L. 95-91, as amended, 42 U.S.C § 7256).

The Department of the Interior enters into this Agreement under the authority of the National Park Service Organic Act, 16 U.S.C § 1, et seq.

VI. General

This Agreement in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations or individuals.

This Agreement is neither a fiscal nor a funds obligation document. Nothing in this Agreement authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

This Agreement is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party. This Agreement shall not be construed to provide a private right or cause of action for or by any person or entity.

All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations and other legal requirements.

This MOU shall take effect on the date of the last approving signature.



Samuel W. Bodman
Secretary of Energy

Dirk Kempthorne
Secretary of the Interior

DATE: 30 Aug 07

DATE: _____

Memorandum of Understanding

between the

U.S. Department Energy

and the

U.S. Department of Labor

Concerning Energy Sector Workforce Study

I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to establish a cooperative working relationship between the U.S. Department of Energy (DOE) and the U.S. Department of Labor, through its Employment and Training Administration (DOL), to arrange for the conduct of a study, mandated by Congress, of the short- and long-term availability of skilled workers to meet the energy and mineral security needs of the United States. This MOU sets forth the signatory Parties' respective roles and responsibilities, and establishes a framework to facilitate collaboration. This MOU also establishes a cooperative working relationship under which DOE and DOL may seek other Federal agency funding for the study, and DOL will administer the study on behalf of DOE and other participating Federal agencies.

II. Background

Sections 385 and 1830 of the Energy Policy Act of 2005 (Pub. L. 109-58) (the Act), direct DOE to enter into an arrangement with the National Academy of Sciences (NAS) for the conduct of a study on the short- and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States. The Act specifies that the study should focus on the oil, gas, and mineral (mining) industries. Under the Workforce Investment Act (Pub. L. 105-220, section 171), DOL is responsible for carrying out research projects that contribute to the solution of employment and training problems and workforce preparedness in the United States. Under this agreement, DOL will fund the cost of NAS's conduct of a comprehensive study on the availability of an educated and skilled energy workforce, and the capacity of our nation's education and training system to prepare a skilled workforce for the energy industry.

DOE and DOL agree that the study will yield more useful findings and recommendations if it examines electric, nuclear, and renewable energy workforce availability in addition to those sectors named in the Act. DOE and DOL will provide NAS with input on the study sectors. DOE and DOL agree that it is in the best interests of both agencies' missions that DOL administer the study with NAS on DOE's behalf.

III. Authorities and General Terms

- a. DOE enters into this MOU under the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. § 7256).

- b. Authority for DOL to enter into an agreement with DOE to fund and administer the study: Workforce Investment Act, Pub. L. 105-220, sections 171(c)(2) and 189(c), 29 U.S.C. §§ 2916(c)(2) and 2939(c).

Nothing in this agreement shall be interpreted as limiting, superseding, or otherwise affecting either agency's normal operations or decisions in carrying out its statutory or regulatory duties. This agreement will be executed in full compliance with the Privacy Act of 1974.

This agreement in no way restricts either Party from participating in any activity with other public or private agencies, organizations or individuals.

This agreement is neither a fiscal nor a funds obligation document. Nothing in this agreement authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

This agreement is strictly for internal management purposes for each Party. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party. This agreement shall not be construed to provide a private right or cause of action for or by any person or entity.

All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations and other legal requirements.

IV. Scope of Responsibilities

DOE and DOL recognize each other's roles and responsibilities in the development and implementation of the NAS study.

DOL will undertake the following responsibilities:

- a. Serve as the lead agency and enter into a contract with the NAS on behalf of DOE using the attached Statement of Work (SOW). Any changes to the SOW shall be agreed to by both DOL and DOE;
- b. Provide input to the NAS on the goals and objectives, priorities, scope and plan, technical requirements, cost and schedule of study;
- c. Assist the NAS in working with Federal and private study participants during the study period;
- d. Provide qualitative and quantitative data and other relevant information to the NAS;
- e. Provide subject matter expertise as needed and assign an agency representative to the NAS;
- f. Monitor and comment on the status, progress, and results of the research study; and
- g. Assist with dissemination of the results of the study in partnership with the NAS and DOE.

DOE will undertake the following responsibilities:

- a. Authorize DOL to administer the study required by the Act;
- b. Provide input as appropriate on industry sectors for the study;
- c. Provide qualitative and quantitative data and other relevant information to the NAS, as needed;
- d. Provide subject matter expertise as needed and assign an agency representative to the NAS;
- e. Provide feedback on the results of the study; and
- f. Assist with dissemination of the results of the study in partnership with the NAS and DOL.

Project Oversight

For DOL:

Thomas M. Dowd
Administrator
Office of Policy Development and Research
Employment and Training Administration
U.S. Department of Labor
200 Constitution Ave. N.W., N-5641
Washington, D.C. 20210
(202) 693-3700

For DOE:

Carmen Difiglio
Office of Policy and International Affairs
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585
(202) 586-8436

V. Technical Liaisons

For DOL:

Janet Javar
Manpower Development Analyst
Employment and Training Administration
U.S. Department of Labor
200 Constitution Ave. N.W., N-5641
Washington, D.C. 20210
(202) 693-3677

For DOE:

Hilary Smith
Office of Policy and International Affairs
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585
(202) 586-4295

VI. Period of Performance and Termination Conditions

This agreement is effective when signed by both Parties and shall remain in effect for two (2) years. This agreement may be modified in writing with the concurrence of both Parties; further, either Party may terminate this agreement with reasonable notice provided to the other party in writing.

VII. Resolution Mechanism

Any disputes arising under this agreement shall be resolved in the manner prescribed by Treasury Financial Manual, Volume I, Bulletin No. 2007-03, Attachment 1, sec. VII, in accordance with Office of Management and Budget (OMB) memo M-07-03.

VIII. Approval

The signatories below warrant and represent that they have the competent authority on behalf of their respective agencies to enter into the obligations set forth in this agreement.

Emily Stover DeRocco
Assistant Secretary of Labor
Employment and Training Administration
U.S. Department of Labor
Date: _____

Karen A. Harbert
Assistant Secretary of Energy
Policy and International Affairs
U.S. Department of Energy
Date: _____



Department of Energy
Washington, DC 20585

November 9, 2007

ES#2007-011280

MEMORANDUM FOR THE SECRETARY

FROM:

KAREN A. HARBERT 
ASSISTANT SECRETARY
OFFICE OF POLICY & INTERNATIONAL AFFAIRS

SUBJECT:

ACTION: Signature of Memorandum of Understanding between DOE and the Department of Labor concerning the conduct by the National Academy of Sciences of a study mandated by the Energy Policy Act of 2005 (EPACT 2005).

ISSUE:

Delegation of authority to the Assistant Secretary for Policy and International Affairs to sign the proposed MOU (attached).

BACKGROUND:

Sections 385 and 1830 of the EPACT 2005 require the Secretary of Energy to enter into an arrangement with the National Academy of Sciences (NAS) under which the NAS will conduct a study of the short-term and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States.

EPACT 2005 requires the Secretary of Energy to report to the Congress the results of the NAS study not later than 2 years from the date of the enactment of EPACT 2005.

DISCUSSION:

To arrange for the study mandated by EPACT 2005, I propose that DOE conclude the MOU with the Department of Labor (DOL), which, in turn, will enter into an agreement with the NAS to conduct the required study. It is anticipated that this approach will save the DOE approximately \$800,000 as the DOL has agreed to use its appropriated funds to pay for this study. Congress has not appropriated funds to the DOE for this purpose.

The authority to enter into an arrangement for the conduct of the NAS study has been vested in the Secretary. Therefore, a delegation of authority is necessary to allow the Assistant Secretary for Policy and International Affairs to sign the MOU with DOL.

SENSITIVITIES:

None.

CONTACT:

Al Cobb, PI-1, 6-8635



RECOMMENDATION: That you authorize me to sign the MOU.

CONCURRENCE:

FE Deff Slutz 10/22/07 CI Ep Pani 10/18/07
OE Kolevar 10/18/07 US Albright (Schwartz for) 10/19/07
NE Spurgeon 10/17/07
EE Karsner 10/14/07
GC OK for OGAC OK 11/8/07 as marked

Attachment: Proposed MOU

cc: Clay Sell
Deputy Secretary

APPROVE:

Seal Bodine

DISAPPROVE:

DATE:

27 Nov 07



*U.S. Department of Energy
and the
National Science Foundation*



EXEC-2007-012157

Memorandum of Understanding between
the U.S. Department of Energy
and
the U.S. National Science Foundation
concerning the
Nuclear Science Advisory Committee

Preamble

The Department of Energy (DOE) and the National Science Foundation (NSF) have been effective partners in establishing and maintaining U.S. leadership in the international study of nuclear science. A goal for both agencies is to strengthen this partnership as the course of nuclear science advances in the 21st century. The two agencies have shared the direction of the Nuclear Science Advisory Committee (NSAC) since its inception in 1977, with each agency taking responsibility for alternate two-year periods. However, the advent of the internet has made it more convenient for one agency, the DOE, to continuously maintain the NSAC website. Furthermore, for continuity it is preferable for the charter to remain with one agency. We thus agree that the charter and website remain with the DOE, together with the responsibilities for organization and meeting logistics. The lead responsibility for the direction of NSAC itself, selecting members, putting together meeting agendas and developing charges will continue to be shared by the two agencies.

While the agencies do have overlap in their areas of expertise, there are areas where each is especially strong. The DOE maintains its role of stewardship for the national Nuclear Physics (NP) program through its effective management of the National Laboratories, advancing research and development of technologies for future accelerators, and promoting technology transfer through public-private research partnerships. The NSF has a special role of connecting NP research to the public and other scientific disciplines through innovative outreach and crosscutting initiatives which exploit new technologies and emerging synergies between NP and other fields (such as Astrophysics or Computer and Information Science). Together, DOE and NSF will develop and diversify their shared role in nurturing the U.S. university program in nuclear physics experiment and theory. This program in turn produces the young scientists who will make the future breakthroughs and greatly enhance the scientific and technical workforce of the future so important to the health and welfare of our Nation.

From observations of stars, galaxies, and high-energy particles from space to experiments with man-made particle accelerators as well as investigating radioactive decay, the study of matter and energy and understanding their roles in shaping the universe has been one of the major scientific themes of the twentieth century. The 21st century promises many exciting new challenges, including understanding the substructure of the nucleon and nuclear matter; creating and characterizing the properties of hot, dense nuclear matter; investigating new regions of nuclear structure and determining the reactions that created the nuclei of the chemical elements inside stars and supernovae; and determining the essential properties of neutrinos and the underlying fundamental symmetries of nature. To develop our fundamental understanding of the universe requires new ideas, new people, and new tools. The DOE/NSF partnership in NP recognizes the challenges of the 21st century and will meet them with renewed energy. The joint ownership of NSAC is an important element furthering the development of this important research frontier.

1. Introduction

The NSAC has advised the Federal Government on the national program in experimental and theoretical nuclear science since its inception in 1977. The Committee is chartered by DOE and reports to the DOE, Associate Director of the Office of Science for Nuclear Physics, and to NSF Assistant Director, Directorate for Mathematical and Physical Sciences, under the guidelines established by the Federal Advisory Committee Act (FACA), as amended, and its accompanying rules and regulations.

The Committee undertakes periodic reviews of the elements of the Nuclear Physics program; provides recommendations of desirable programmatic changes; and advises on long-range plans, priorities, and appropriate levels of funding for the nuclear physics research portfolio. The Committee formally reports to both agencies. This joint ownership of NSAC by the DOE and the NSF underscores the commitment of both agencies to work together to support continued U.S. leadership in this area of forefront research.

2. Purpose of the Memorandum of Understanding

It is the purpose of this DOE/NSF Memorandum of Understanding (MOU) to define the relationship between the two agencies relative to NSAC. The MOU formalizes procedures for appointments of NSAC members and the Chairperson, charges from the agencies to NSAC for specific activities or studies and advice, and sets the form and channels for NSAC to report formally to the agencies.

3. Charter

The DOE and NSF will jointly develop the charter for NSAC. The DOE will be responsible for periodically renewing the charter and ensuring that it conforms to the appropriate Federal regulations, with changes requiring joint agency concurrence.

4. Panel Membership and Appointments

The DOE and NSF Program Offices will jointly recommend NSAC membership, including the Chair, following the protocols of their respective agencies, to the DOE Under Secretary for Science and the Director of the NSF. The DOE Under Secretary for Science and the Director of the NSF will jointly appoint committee members, including the Chair. The term of membership will normally be up to three years. Members other than the Chair will normally not be reappointed. The Chair may be reappointed for additional terms.

5. Subcommittees

The Committee is occasionally requested to address major issues in the national NP program or to formulate long-range plans for future research directions. To facilitate this function of the Committee, subcommittees may be formed. The objectives of the subcommittees are to make recommendations to the parent Committee on the particular matters relevant to their charge. After approval by NSAC, the subcommittee reports will be transmitted by NSAC to the DOE and the NSF.

Subcommittee membership will include individuals from the current NSAC membership as well as others.

6. Charges to the Committee

The DOE and the NSF will jointly develop charges to NSAC and its subcommittees. The charges are transmitted to NSAC jointly by the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences. Either the DOE or NSF Program Office can initiate a request for NSAC to conduct studies and provide advice on the national nuclear science program. The formal charge to NSAC to conduct the study will be issued as described above.

7. Reporting

The Committee will report to the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences. A primary form of reporting will be a letter from the Chairperson of NSAC following each of the formal meetings of the Committee. The NSAC Chairperson will convey special reports and studies from subcommittees to the above-named officials after appropriate action by NSAC. From time to time, the Chair of NSAC may also be requested to make reports to the Secretary of Energy, Under Secretary for Science, the Director of the DOE Office of Science, the Director of the NSF, the National Science Board, the Office of Science and Technology Policy, other interested governmental organizations or Congress.

8. Administration and FACA Requirements

The administration of NSAC is an exception to strict joint ownership; DOE retains responsibility for all FACA requirements.

The Committee operates under DOE rules regarding implementation of the requirements imposed by FACA.

FACA legislation requires that each Federal advisory committee have a "Designated Federal Officer" (DFO) responsible for its operations. The DFO responsible for NSAC is the DOE Director of the Physics Research Division, Office of Nuclear Physics, Office of Science. The DFO may delegate authority in his/her absence, as appropriate. The DFO will ensure that NSAC meetings are announced in the Federal Register.

The DFO appoints the Executive Secretary for NSAC. In consultation with staffs of the DOE, the NSF, the NSAC Chair and others, the Executive Secretary, with the concurrence of the DFO, will set details of the meeting agenda. The Executive Secretary will keep minutes of the meetings.

General logistical support services for NSAC and its subcommittees will reside with the DOE, with additional support provided by the NSF as needed and as appropriate.

9. Resolution of Disagreements

Disagreements between the DOE and NSF staff related to NSAC issues, where concurrence cannot be resolved, will be transmitted to the DOE Associate Director of the Office of Science for Nuclear Physics, and the NSF Assistant Director, Directorate for Mathematical and Physical Sciences, for resolution.

10. Amendment and Termination

This MOU may be modified or amended by written agreement between DOE and NSF. This MOU may be terminated by mutual agreement, or by either party upon 90-day written notice to the other. Notices of amendment or termination will be signed by the DOE Associate Director of the Office of Science for Nuclear Physics, and/or the NSF Assistant Director, Directorate for Mathematical and

Physical Sciences, as appropriate. In the event of termination or should any amendment modify a charter provision, DOE will prepare an amended charter and take any further action required by FACA.

11. Funding

This agreement does not create legal rights or obligations in either party, or obligate, commit, or transfer funds.

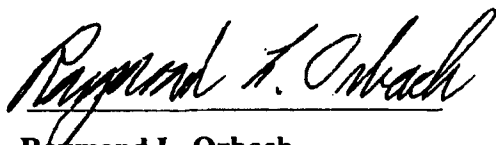
This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

12. Additional Terms

This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations or individuals.

This MOU is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

This MOU is effective when signed by both agencies.

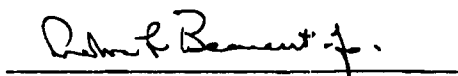


Raymond L. Orbach

Under Secretary for Science

DEC 18 2007

Date



Arden L. Bement, Jr.

Director, National Science Foundation

JAN - 2 2008

Date



Under Secretary for Science

Washington, DC 20585

EXEC-2007-012173

January 10, 2008

MEMORANDUM FOR THE SECRETARY

FROM:

Ryan M. Orbach
R. M. ORBACH
UNDER SECRETARY FOR SCIENCE

SUBJECT:

ACTION: Approval to Amend the High Energy Physics Advisory Panel (HEPAP) Charter and to Amend the Memorandum of Understanding (MOU) Between the Department of Energy (DOE) and the National Science Foundation (NSF) concerning the High Energy Physics Advisory Panel

ISSUE:

The current High Energy Physics Advisory Panel Charter expires July 14, 2009 and is renewed every two years.

Amendment of the Panel's charter (Tab A) is both essential and in the public interest in connection with the performance of duties imposed by law on the Department of Energy and the National Science Foundation. The Panel's functions cannot be carried out by any existing advisory committee or by any other Department of Energy or National Science Foundation component, and its advice cannot be obtained more economically through other means such as public hearings. The substantive change in this revision is that the Under Secretary for Science appoints panel members instead of the Secretary of Energy.

BACKGROUND:

Both the Department of Energy and the National Science Foundation integrated their partnership as a joint Advisory Committee in January 2001. The joint ownership has enhanced the agencies' commitment to support continued U.S. leadership in this forefront research. The amended Memorandum of Understanding (MOU) between the agencies outlining their working relationship is attached (Tab B). (Note MOU is also changed to reflect the amendment). Also attached is the Delegation of Authority Memorandum (Tab C) from the Secretary of Energy to the Under Secretary for Science giving the Under Secretary the Authority to appoint panel members.



SENSITIVITIES: None.

RECOMMENDATION: That the Secretary:

(1) Approve amendment of the High Energy Physics Advisory Panel Charter which is in effect for a two-year period until July 14, 2009 (Tab A) and (2) approve amendment of the Memorandum of Understanding (Tab B) (after Memorandum of Understanding (MOU) is signed by the Under Secretary of Energy for Science the Director of the National Science Foundation will sign the MOU) (Tab B).

APPROVE: Samuel C Bodman

DISAPPROVE: _____

DATE: JAN 14 2008

ATTACHMENTS:

Tab A: Amended Charter

Tab B: Amended Memorandum of Understanding

Tab C: Delegation of Authority Memorandum from the
Secretary of Energy

CONCURRENCE:

12/7/2007 GC/SWadel concurred for
SBeard

David R. Hill
General Counsel

Ingrid Kolb
Ingrid Kolb
Director, Office of Management

Carol A. Matthews
Carol A. Matthews
Acting Committee Management Officer



Memorandum of Understanding between
the U.S. Department of Energy
and
the U.S. National Science Foundation
concerning the
High Energy Physics Advisory Panel

Preamble

The Department of Energy (DOE) and the National Science Foundation (NSF) have been effective partners in establishing and maintaining U.S. leadership in the international study of high-energy physics (HEP). The agencies have expanded this partnership, building on the traditional strengths of both agencies to advance the course of high-energy physics into the 21st century. Since the original MOU was instituted in 2000, we have enhanced the function for the Federal advisory committee on high-energy physics (called the High Energy Physics Advisory Panel – HEPAP) to formally advise both the DOE and the NSF on the overall U.S. HEP program. This function has helped integrate the DOE and the NSF HEP efforts and has added value by increasing the effectiveness of the DOE/NSF partnership in this important research field. Further, the joint ownership of HEPAP by the DOE and the NSF has underscored the commitment of both agencies to support continued U.S. leadership in this forefront research.

An enhanced DOE and NSF research partnership has strengthened the historical roles of both agencies and has added important new components leading to a broader and more vigorous overall program. While the agencies do have overlap in their areas of expertise, there are areas where each is especially strong. The DOE will continue its role of stewardship for the national HEP program through its effective management of the National Laboratories, advancing research and development on technologies for future accelerators, and promoting technology transfer through public-private research partnerships. The NSF will continue its role of connecting HEP research to the public and other scientific disciplines through innovative outreach and crosscutting initiatives which exploit new technologies and emerging synergies between HEP and other fields (such as Astronomy, or Computer and Information Science). Together, DOE and NSF will continue to develop and diversify their shared role in nurturing the unparalleled U.S. university program in HEP experiment and theory. This program in turn produces the young scientists who will make the breakthroughs of the new century and greatly enhance the scientific and technical workforce of the future.

From observations of stars, galaxies, and high-energy particles from space to experiments with man-made particle accelerators, the study of matter and energy and understanding their roles in shaping the universe has been one of the major scientific themes of the twentieth century. The new century promises many exciting new challenges, including understanding the origin of mass, the nature and origin of the highest-energy cosmic phenomena, why there is a predominance of matter over antimatter, and what fueled the Big Bang. To develop our fundamental understanding of the universe will require new ideas, new people, and new tools. The DOE/NSF partnership in HEP recognizes the challenges of the 21st century and will meet them with renewed energy. The joint ownership of HEPAP is an important step in that journey.

1. Introduction

The High Energy Physics Advisory Panel (HEPAP) has advised the Federal Government on the national program in experimental and theoretical high-energy physics (HEP) research since its inception in 1967. The Panel is currently chartered by the Department of Energy (DOE) and reports directly to its Associate Director for High Energy Physics, Office of Science and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF, under the guidelines established by the Federal Advisory Committee Act (FACA), as amended, and its accompanying rules and regulations. The Panel activities include periodic reviews of the HEP program, recommendations of any desirable changes, and advice on long-range plans, priorities, and appropriate levels of funding.

The DOE and the NSF have enhanced their existing partnership in advancing HEP research by making HEPAP a dual-agency advisory committee. This joint ownership of HEPAP by the DOE and the NSF underscores the commitment of both agencies to work together to support continued U.S. leadership in this forefront research.

2. Purpose of the Memorandum of Understanding

It is the purpose of this DOE/NSF Memorandum of Understanding (MOU) to define the relationship between the two agencies relative to HEPAP. The MOU formalizes procedures for appointments of HEPAP members, the Chairperson and the Vice Chair, charges from the agencies to HEPAP for specific studies and advice, and sets the form and channels for HEPAP to report formally to the agencies.

3. Charter

The DOE and NSF have jointly developed the charter for HEPAP. The DOE will be responsible for periodically renewing the charter and ensuring that it conforms to the appropriate Federal regulations, with changes requiring joint agency concurrence.

4. Panel Membership and Appointments

The DOE and NSF Program Offices will continue to jointly recommend HEPAP membership, including the Chairperson and Vice Chair, following the protocols of their respective agencies, to the Under Secretary for Science and the Director of the NSF. The Under Secretary for Science and the Director of the NSF will jointly appoint panel members, including the Chairperson and Vice Chair. The term of membership will be approximately two to three years; members other than the Chairperson and the Vice Chair will normally not be reappointed. The Chairperson and Vice Chair may be reappointed for additional terms.

5. Subpanels

The Panel is occasionally requested to address major issues in the national HEP program or to formulate long-range plans for future research directions. To facilitate this function of the Panel, subpanels may be formed. The objective of the subpanels is to make recommendations to the parent Panel on the particular matters relevant to their charges. After approval by HEPAP, the subpanel reports will be transmitted by HEPAP to the DOE and the NSF. Subpanel membership will include representatives from the current HEPAP membership. However, to ensure that the knowledge

necessary to conduct these various studies will be available, membership may also include experts from the broad high-energy physics community.

6. Charges to the Panel

The DOE and the NSF will continue to jointly develop charges to HEPAP and its subpanels. The charges are transmitted to HEPAP jointly by the Associate Director for High Energy Physics, Office of Science, DOE and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF. Either the DOE or NSF Program Office may initiate a request for HEPAP to conduct studies and provide advice on the national high-energy physics program. The formal charge to HEPAP to conduct the study will be issued as above.

7. Reporting

The Panel will report to the Associate Director for High Energy Physics, Office of Science, DOE, and the Assistant Director, Mathematical and Physical Sciences Directorate, NSF. A primary form of reporting will be a letter from the Chairperson of HEPAP following each of the formal meetings of the Panel. The HEPAP Chairperson will convey special reports and studies from subpanels to the above-named officials after appropriate action by HEPAP. From time to time, the Chair of HEPAP may also be requested to make reports to the Under Secretary for Science, the Director of the NSF, the National Science Board, the Office of Science and Technology Policy, or Congress.

8. Administration and FACA Requirements

The administration of HEPAP is an exception to strict joint ownership; DOE retains responsibility for all FACA requirements.

The Panel operates under DOE rules regarding implementation of the requirements imposed by FACA.

FACA legislation requires that each Federal advisory committee have a "Designated Federal Officer" (DFO) responsible for its operations. The DFO responsible for HEPAP is the Deputy Associate Director for High Energy Physics, Office of Science, DOE. The DFO may delegate the authority within the agencies when necessary. The DFO will ensure that HEPAP meetings are announced in the Federal Register.

The DFO appoints the Executive Secretary for HEPAP. In consultation with staffs of the DOE, the NSF, the HEPAP Chair and others, the Executive Secretary, with the concurrence of the DFO, will set details of the meeting agenda.

General logistical support services for HEPAP and its subpanels will reside with the DOE, with additional support provided by the NSF as needed and as appropriate.

9. Amendment and Termination

This MOU may be modified or amended by written agreement between DOE and NSF. This MOU may be terminated by mutual agreement, or by either party upon 90-day written notice to the other. Notices of amendment or termination will be signed by the Associate Director for High Energy Physics, Office of Science, DOE, and/or the Assistant Director, Mathematical and Physical Sciences Directorate, NSF, as appropriate. In the event of termination or should any amendment modify a charter provision, DOE will prepare an amended charter and take any further action required by FACA.

DEPARTMENT OF ENERGY (DOE) and
NATIONAL SCIENCE FOUNDATION (NSF)
CHARTER
HIGH ENERGY PHYSICS ADVISORY PANEL

1. Committee's Official Designation:

High Energy Physics Advisory Panel

2. Committee's Objectives and Scope of Activities and Duties:

The High Energy Physics Advisory Panel provides advice on a continuing basis to the Associate Director, Office of High Energy Physics, Office of Science (DOE), and the Assistant Director, Mathematical & Physical Sciences Directorate (NSF), on the national high energy physics program, which encompasses the conduct of experimental and theoretical high energy physics research and accelerator R&D. The Panel activities include:

- a. periodic reviews of the program and recommendations of any changes considered desirable on the basis of scientific and technological advances or other factors such as current projected budgets and status of other international high energy physics efforts;
- b. advice on competing long-range plans, priorities, and strategies for the national high energy physics program;
- c. advice on recommended appropriate levels of funding to assure a world leadership position and to help maintain appropriate balance among the various elements of the program; and
- d. advice on any issues relating to the program as requested by the Associate Director, Office of High Energy Physics, Office of Science (DOE), and the Assistant Director, Mathematical & Physical Sciences Directorate (NSF).

3. Time Period Necessary for the Committee to Carry Out its Purpose:

In view of the goals and purposes of the Panel, it is expected to be continuing in nature.

4. Official to Whom this Committee Reports:

The Panel will report to the Associate Director, Office of High Energy Physics, Office of Science (DOE) and the Assistant Director, Mathematical & Physical Sciences Directorate (NSF).

5. Agency Responsible for Providing Necessary Support for this Committee:

Department of Energy

Within the Department, primary support shall be furnished by the Office of High Energy Physics, Office of Science.

6. A Description of Duties for which the Committee is Responsible:

The duties of the Panel are solely advisory and are stated in paragraph 2 above.

7. Estimated Annual Operating Costs in Dollars and Person-Years:

\$ 247,000.00, ½ person-year.

8. Estimated Number and Frequency of Committee Meetings:

The Panel will meet approximately three times a year, as necessary.

9. Committee's Termination Date (if less than two years from the date of establishment or renewal):

Not Applicable.

10. Subcommittee(s):

To facilitate the functioning of the Panel, subpanels may be formed. The objectives of the subpanels are to make recommendations to the parent panel with respect to particular matters concerning plans and programs which are related to the responsibilities of the parent panel. Ad hoc members from outside the High Energy Physics Advisory Panel may be appointed to ensure that the knowledge necessary to conduct the various studies will be achieved.

11. Members:

- a. Panel members shall be appointed by the Under Secretary for Science and the Director of the National Science Foundation.
- b. Members shall be experts in their respective field and appointed as special Government employees, or representatives of entities including, among others, research facilities and academic institutions, should the Committee's task require such representation.

- c. Approximate number of Panel Members: 25
- d. Membership term will be up to three to five years for members other than the Chairperson.

12. Chairperson:

The Chairperson and the Vice Chairperson may be appointed for a term of up to three to five years by the Under Secretary for Science and the Director of the National Science Foundation. The Chairperson and the Vice Chairperson may be reappointed for one additional term.

Charter for the Advisory Committee named above is hereby approved on:

Date

Carol Matthews
Acting Committee Management Officer

Date Filed

MEMORANDUM OF UNDERSTANDING**Among****AMERESCO FEDERAL SOLUTIONS,****THE NATIONAL RENEWABLE ENERGY LABORATORY,****And****THE U.S. DEPARTMENT OF ENERGY**

The purpose of this Memorandum of Understanding ("MOU") is to recognize and support the recent execution of the July 5th, 2007, Energy Savings Performance Contract (ESPC) Purchase Order between Ameresco Federal Solutions, Inc. ("Ameresco"), the National Renewable Energy Laboratory ("NREL"), and the U.S. Department of Energy ("DOE") to design, construct, and maintain a Renewable Fuel Heating Plant ("RFHP") at NREL.

The intent of this MOU is to acknowledge the successful execution of the ESPC Purchase Order compelling Ameresco to design, construct and maintain the RFHP, a wood-fired boiler, as the primary heating source for NREL's building climate control. The new RFHP will replace the current natural gas system, allowing NREL to switch from using fossil fuel to renewable fuel as its heating feedstock.

The Department of Energy enters into this MOU under the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. § 7256). The Parties to this MOU recognize that this ESPC Purchase Order promotes the goals of the Secretary of Energy's Transformational Energy Action Management ("TEAM") Initiative, a Department-wide program designed to expedite and enhance the implementation of on-site renewable energy use in support of the President's Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management." E.O. 13423 directs all federal agencies and departments "to conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner."


MOU Limitations

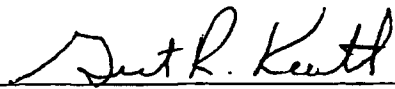
- (A) This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of any of the parties.
- (B) In no way will this MOU override or supersede the July 5th, 2007 ESPC Purchase Order nor shall it be interpreted as a modification or waiver of any rights granted therein.

- (C) This MOU can be terminated by any party at any time by providing notice in writing to the other parties.
- (D) This MOU in no way restricts any of parties from participating in any activity with other public or private agencies, organizations or individuals.
- (E) This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

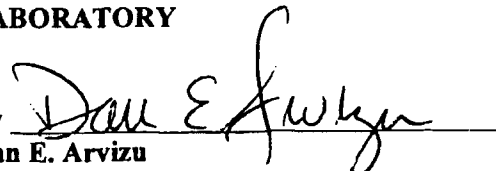
DEPARTMENT OF ENERGY

**AMERESCO FEDERAL SOLUTIONS,
INC.**


Samuel W. Bodman
Secretary

By 
Grant R. Keath
Business Development Manager

**NATIONAL RENEWABLE ENERGY
LABORATORY**

By 
Dan E. Arvizu
Director

MEMORANDUM OF UNDERSTANDING**Among****SUN EDISON LLC,****THE WESTERN AREA POWER ADMINISTRATION,****THE NATIONAL RENEWABLE ENERGY LABORATORY,****XCEL ENERGY INC,****And****THE U.S. DEPARTMENT OF ENERGY**

The purpose of this Memorandum of Understanding ("MOU") is a non-binding expression of intent to recognize and support the arrangements among Sun Edison LLC ("SunEdison"), the Western Area Power Administration ("Western"), the National Renewable Energy Laboratory ("NREL"), the U.S. Department of Energy ("DOE") and Xcel Energy Inc. ("Xcel Energy") to facilitate the development, construction, operation and maintenance of an on-site photovoltaic ("PV") renewable energy generation project at the NREL site on South Table Mountain in Golden, Colorado.

The intent of this MOU is to acknowledge the good faith efforts by the parties in support of project development activities designed to expedite: (1) the execution of a Solar Power and Services Agreement between SunEdison in its capacity as the energy services supplier and DOE, as purchaser through the Western Area Power Administration; (2) an Easement Outgrant between DOE and SunEdison providing the necessary land rights to SunEdison; and (3) execution of any other documents, permits, approvals, or licenses required to effect the construction and operation of a 750 kW photovoltaic solar energy project to be located on property owned by DOE at the NREL site (the "Project"). In addition, this MOU recognizes Xcel Energy's role in facilitating the Project by providing rebates, purchasing the Solar Renewable Energy Credits from the Project developer, and assisting with and supporting the interconnection to the grid.

DOE enters into this MOU under the authority of section 646 of the Department of Energy Organization Act, (Pub. L. 95-91, as amended; 42 U.S.C § 7256) and it is recognized this Project will be conducted in furtherance of the Secretary of Energy's Transformational Energy Action Management Initiative, a Department-wide program designed to expedite and enhance the implementation of on-site renewable energy generation in support of the President's Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management." E.O. 13423 directs all federal agencies and departments "to conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner."

MOU Limitations

- (A) This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of any of the parties. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.
- (B) SunEdison and Xcel Energy agree that they will not claim or imply that DOE or NREL endorses the sale and purchase of their products and services or those of their member companies.
- (C) This MOU can be terminated by any party at any time by providing notice in writing to the other parties.
- (D) This MOU in no way restricts any party from participating in any activity with other public or private agencies, organizations or individuals.
- (E) This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

DEPARTMENT OF ENERGY

AT THE DIRECTION OF THE SECRETARY OF ENERGY:



Samuel W. Bodman
Secretary


WESTERN AREA POWER ADMINISTRATION

By 
Timothy J. Meeks
Administrator

SUN EDISON LLC

By 
Thomas Rainwater
Chief Executive Officer

XCEL ENERGY INC.

By 
Richard C. Kelly
Chairman, President and Chief Executive
Officer

NATIONAL RENEWABLE ENERGY LABORATORY

By 
Dan E. Arvizu
Director

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND THE
DEPARTMENT OF ENERGY
CONCERNING
COOPERATION ON THE JOINT DARK ENERGY MISSION

ARTICLE I – AUTHORITY

This Memorandum of Understanding (MOU) is entered into by the National Aeronautics and Space Administration (NASA) and Department of Energy (DOE) (jointly referred to as “the Parties” hereinafter). NASA enters this MOU pursuant to its authority under the National Aeronautics and Space Act of 1958, sections 203 (c)(5) and (c)(6); 42 USC §2473 (c)(5) and (c)(6). DOE enters into this MOU pursuant to authorities conferred in the Department of Energy Organization Act, 42 USC §7101, et seq., (42 USC §7151), and the Atomic Energy Act of 1954, 42 USC §2011 et seq. This cooperation is consistent with the Memorandum of Understanding between National Aeronautics and Space Administration and U.S. Department of Energy Regarding Energy-related Civil Space Activities, dated July 9, 1992.

ARTICLE II – PURPOSE AND BACKGROUND

The purpose of this MOU is to define the agreement between the Parties concerning roles and responsibilities on the Joint Dark Energy Mission (JDEM).

One of the most significant scientific findings in the last decade is that the expansion of the universe is accelerating due to a previously unknown “dark energy”, which makes up approximately three-quarters of the total mass-energy content of the universe. The Parties both consider the quest to understand the nature of dark energy a high priority in their science programs. It is not known whether the dark energy is due to a vacuum energy (e.g., Einstein’s cosmological constant), or whether the expansion rate varies with time as a result of the existence of a new scalar field, a breakdown of Einstein’s general relativity or an artifact of having more than four space-time dimensions in our universe. Any discoveries about its nature will have a fundamental impact on physics and astronomy. JDEM will lead us to these discoveries by measuring the expansion rate of the universe and the growth of structure to high

precision. The importance of understanding dark energy has been emphasized in a number of significant reports.*

In the Fall of 2006, the Parties jointly funded a National Research Council (NRC) study by the Beyond Einstein Program Assessment Committee (BEPAC). The purpose was to assist NASA in determining the highest priority of the five proposed missions in their Beyond Einstein program. In September 2007, the BEPAC released its report and noted two findings relating to JDEM:

- "A JDEM mission will set the standard in the precision of its determination of the distribution of dark energy in the distant universe. By clarifying the properties of 70 percent of the mass-energy in the universe, JDEM's potential for fundamental advancement of both astronomy and physics is substantial. A JDEM mission will also bring important benefits to general astronomy. In particular, JDEM will provide highly detailed information for understanding how galaxies form and acquire their mass."
- "The JDEM mission candidates identified thus far are based on instrument and spacecraft technologies that have either been flown in space or have been extensively developed in other programs. A JDEM mission selected in 2009 could proceed smoothly to a timely and successful launch."

BEPAC recommended that JDEM be the first of the NASA Beyond Einstein missions to be developed and launched:

"NASA and DOE should proceed immediately with a competition to select a Joint Dark Energy Mission for a 2009 new start. The broad mission goals in the Request for Proposal should be (1) to determine the properties of dark energy with high precision and (2) to enable a broad range of astronomical investigations. The committee encourages the Agencies to seek as wide a variety of mission concepts and partnerships as possible".

Following the BEPAC report, DOE and NASA agreed to proceed with JDEM.

ARTICLE III – PROJECT DESCRIPTION

JDEM will be the first U.S. space-based mission specifically designed to study the nature of dark energy. JDEM will include a wide-field telescope and appropriate focal plane instrumentation. The goal for launch is the middle of the next decade.

Basic Principles

The basic principles upon which this MOU is based are:

1. The Parties agree to partner in a JDEM.
2. NASA will be the lead agency for JDEM, responsible for the success of the overall space mission.

* See the National Research Council (NRC) report, *Connecting Quarks with the Cosmos* (2003), the National Science and Technology Council's Interagency Working Group on the Physics of the Universe report (2004), the National Research Council's report, *Revealing the Hidden Nature of Space and Time: Charting the Course for Elementary Particle Physics* (2006), and the Dark Energy Task Force (DETF) report (2006).

3. JDEM will be a medium-class strategic mission with competitively selected, PI-led dark energy science investigations. Cost control will be a central tenet of JDEM project management and mission design.
4. The Announcement of Opportunity (AO)-selected PI-led science investigation teams will perform dark energy science investigations. The selected PI-led science investigation teams will not include the provision of flight hardware.
5. The Parties will provide the mission-level components, including launch services and the spacecraft bus, as well as the science payload.

International Contributions

International contributions may increase the scientific return of JDEM and may also allow the Parties to leverage resources. In consultation with DOE, NASA will investigate the possibility for international contributions. NASA will be the principal point of contact in negotiation and conclusion of international agreements related to JDEM.

Selection Process

The Parties have agreed that the PI-led dark energy science investigation teams will be selected through NASA's AO process. DOE will assist NASA in writing the AO, in conducting the science peer review process, and will concur in the selection of the science investigation teams.

ARTICLE IV – AGENCY ROLES AND RESPONSIBILITIES

The basic roles and responsibilities agreed upon are described in this MOU. Detailed roles and responsibilities will be established via an Implementation Agreement after the selection of the dark energy science investigations.

The Parties will both participate in the fabrication of instrumentation necessary to execute the dark energy science investigations. NASA responsibilities will include the telescope, the main science instrument and the spacecraft bus. DOE's responsibilities will include a major science instrument and a science operations center. The Parties will both participate in the dark energy science operations and data analysis activities, and will provide support for the dark energy science investigations throughout the entire mission.

NASA's roles and responsibilities will also include overall mission management, science requirements to which the mission is designed, mission requirements, mission systems engineering, mission integration and test (I&T), launch operations, and mission operations.

In the implementation of the Parties' decisions and resultant actions, each will follow the policies and procedures of their respective agencies.

The Parties will each allocate funding for components as necessary to fulfill the responsibilities each Party has agreed to accept. Each Party will utilize its normal procurement rules in the fabrication of its contributions to the mission.

ARTICLE V – OVERSIGHT AND COORDINATION

Responsibility for interagency coordination is exercised through the Astrophysics Division of the Science Mission Directorate at NASA and the Office of High Energy Physics of the Office of Science at DOE.

During the development, construction and I&T phases, NASA will perform reviews of the overall JDEM mission to assess project performance. DOE will perform reviews during this phase of its deliverables to the JDEM according to its own practices and procedures, in consultation with NASA's JDEM Project Office. The technical expertise of the Parties on the JDEM will be used in these reviews, thereby maximizing the potential for a world-class dark energy mission and continuing the legacy established in the jointly-developed GLAST Large Area Telescope.

Each Party shall participate in the relevant reviews of the other Party.

ARTICLE VI – FINANCIAL RESPONSIBILITIES

The Parties shall be responsible for the costs they respectively incur in their own interest related to the support of this MOU. Cost overruns on mission level components will be the responsibility of the Party that is providing the component.

All activities under or pursuant to this agreement are subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

ARTICLE VII – LIABILITY

The Parties agree to assume liability for their own risks associated with all activities undertaken in this MOU.

The Parties retain the right to investigate, adjudicate, settle, pay, or deny any claim of liability made against the United States on the basis of alleged actions or inactions of that organization's employees or agents. Each Party agrees to cooperate in investigations conducted by other Party.

If DOE or other partner contributions are not finalized in a timely manner and will significantly delay the mission, NASA reserves the right to go forward with the JDEM without these contributions.

ARTICLE VIII – DATA RIGHTS

It is expected that JDEM data, including suitable calibration and processing tools, will be made available to the public within one year following data acquisition. Any exception to this policy

must be justified on the basis of scientific merit, must be proposed by the science investigation team in response to the AO, must be peer reviewed, and must be accepted by both Parties.

Nothing in this MOU is intended to affect either Party's ownership, use, or licensing of background intellectual property, including patents, copyrights, trade secrets, or its existing rights to models, productions, processes, prototypes, contrivances, test fixtures, structures, drawings, software, and the like, existing on or before the date of this MOU, or first produced outside this MOU, unless a Party specifically agrees otherwise.

It is the intent of the Parties that the information and data exchanged in furtherance of the activities under this agreement will be exchanged without use and disclosure restrictions unless required by applicable regulations or otherwise agreed to by the Parties for specifically identified information or data.

The Parties agree that any requests for information regarding JDEM received under the Freedom of Information Act (FOIA) shall be processed in accordance with the receiving agency's FOIA regulations; however, the receiving Party agrees to consult the other Party prior to the release or denial of any information requested under the FOIA.

The Parties also agree that prior to the release of any significant information regarding this MOU, the JDEM mission or science results, such as a statement to the press, they shall consult together regarding the content of such a release.

ARTICLE IX – TERM OF AGREEMENT

This MOU shall take effect upon the date of the last signature of the Parties. Unless terminated early, this MOU will remain in force for ten (10) years, after which it may be renewed by written agreement of the Parties.

The Approval signatories, their designees, or their successors in office shall resolve all disputes or unresolved items or issues covered by this MOU at the participant level within their respective agencies, using appropriate means necessary including alternative dispute resolution consistent with Federal law and regulation.

This MOU is made by the signatories below and can be modified as required by the mutual consent of the same signatories or their successors. The signatories of this agreement, or their successors, may terminate this MOU upon presentation of ninety (90) days written advance notice to the other, or by the agreement in writing of both Parties.

ARTICLE X – KEY PERSONNEL/POINTS OF CONTACT

The following individuals are designated as the primary points of contact for this MOU:

For DOE:

Dr. Kathleen Turner
JDEM Program Manager
Office of High Energy Physics
Office of Science
Phone: 301-903-1759

For NASA:

Dr. Michael Salamon
NASA Program Scientist for Physics of the Cosmos Program
Astrophysics Division
Science Mission Directorate
Phone: 202-358-0441

Signed on behalf of:

National Aeronautics and Space Administration

BY: _____

Edward J. Weiler
Associate Administrator for
Science Mission Directorate

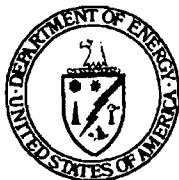
DATE: _____

Department of Energy

BY: _____


Raymond L. Orbach
Undersecretary for Science

DATE: _____



Department of Energy
Washington, DC 20585

MEMORANDUM FOR RAYMOND L. ORBACH
UNDER SECRETARY FOR SCIENCE

FROM: DENNIS KOVAR 
ASSOCIATE DIRECTOR
OFFICE OF HIGH ENERGY PHYSICS

SUBJECT: ACTION: Sign the Memorandum of Understanding (MOU) with
NASA regarding the Joint Dark Energy Mission (JDEM)

ISSUE: An MOU that defines the cooperative agreement between DOE and NASA concerning the roles and responsibilities for JDEM has been prepared for signature.

The MOU is a high level document that describes the fundamental agreement on the mission. The specific roles and responsibilities of each agency will be detailed in an Implementation Agreement established after the mission architecture is defined.

The agencies' goal is to release the Announcement of Opportunity (AO) for the dark energy science investigations by the end of this calendar year. The MOU needs to be signed quickly so that we can brief the Hill and the scientific community on the plans for JDEM, allowing the process to move forward in a timely manner.

BACKGROUND: The basic principles outlined in the MOU are that NASA will be the lead agency for JDEM and that it will have competitively selected PI-led dark energy science investigations. The science teams will be selected by NASA and DOE through NASA's Announcement of Opportunity (AO) process.

The selected teams will perform the science investigations but will not provide the flight hardware, including the telescope and camera(s). Instead, the agencies will provide the hardware and will each use their own procurement rules for the construction responsibilities. NASA will provide the overall mission management, spacecraft bus, launch services and other mission-related items. DOE and NASA will each contribute to the science instrumentation and investigations.

In consultation with DOE, NASA will investigate the possibility for international contributions. NASA will be the principal point of contact for international partnerships.

SENSITIVITIES: The agreement is different than the scientists have been working towards in that the winning team will not lead the hardware. This actually fits within the model of how we run projects better than the original plan.



RECOMMENDATION: That you sign the MOU with NASA regarding the agreement on
JDEM

Attachment JDEM MOU with NASA

APPROVE: _____

DISAPPROVE: _____

DATE: _____



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

EXEC-2008-010615

September 24, 2008

MEMORANDUM FOR THE SECRETARY

OFFICE OF THE ADMINISTRATOR

FROM: THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT: ACTION: APPROVE THE EXECUTION OF THE ATTACHED
AMENDMENT TO THE DOE-TENNESSEE VALLEY AUTHORITY
OFF-SPECIFICATION HIGHLY ENRICHED URANIUM
INTERAGENCY AGREEMENT TO INCLUDE ADDITIONAL
MATERIAL

ISSUE: Consistent with section 3112(e)(1) of the USEC Privatization Act, this memo requests approval to execute the attached amendment to the DOE-Tennessee Valley Authority (TVA) Off-Specification Highly Enriched Uranium (HEU) Interagency Agreement to include an additional (nominal) 250 metric tons (MT) of low-enriched uranium (LEU) that will result from the planned down-blending of nearly 21 MT of surplus HEU.

BACKGROUND: In 2009, DOE plans to have available for transfer the initial LEU resulting from the down-blending of approximately 21 MT of HEU metals, oxides, and reactor fuel elements that have been declared surplus to defense needs. Down-blending will take place at the Savannah River Site (SRS) H-Canyon and associated facilities, and will result in approximately 250 MT of LEU solution. Although the LEU will not meet applicable specifications for commercial nuclear power reactor fuel, it is usable as off-specification fuel. The processing and down-blending work is funded as part of SRS operations through the DOE Office of Environmental Management. It is expected that the down-blending will be completed in 2019.

The Department has an existing Interagency Agreement with Tennessee Valley Authority (TVA) under which approximately 40 MT of down-blended surplus U.S. off-specification HEU are being transferred to TVA for irradiation in its existing reactors. (The original agreement covered 33 MT of HEU; however, subsequent amendments increased the quantity to approximately 40 MT.) As in the case of the current Interagency Agreement, NNSA has the authority to sell or transfer this additional off-specification uranium pursuant to the Atomic Energy Act. In exercising its authority here, NNSA must act in accordance with applicable provisions of the USEC Privatization Act. Under section 3112(e)(1) of the USEC Privatization Act, DOE may transfer or sell enriched uranium to other federal agencies if the receiving agency does not resell or transfer the enriched uranium to another entity and the material does not meet commercial specifications. The proposed amendment to the Interagency Agreement to include additional enriched uranium would be consistent with these statutory provisions.



Further, the proposed amendment to the Interagency Agreement is consistent with the March 2008 "Policy Statement on Management of the Department of Energy's Excess Uranium Inventory," issued by the Secretary. That Policy Statement stated that any disposition of uranium must be done so as to be consistent with applicable law, meet the Department's programmatic needs, be done in a transparent and, absent overriding Departmental mission needs, competitive manner, and be supportive of the maintenance of a strong domestic nuclear industry. Specifically, any such transaction must result in the Department's receipt of reasonable value by taking into account market value, as well as other factors such as the relationship of a particular transaction to overall Departmental objectives, and the extent to which costs to the Department have been or will be incurred or avoided.

This proposal meets the requirements and objectives outlined above. It is consistent with applicable law, meets an important nonproliferation objective of the Department, is supportive of a strong domestic nuclear industry, and achieves a reasonable return to the U.S. Treasury for off-specification material that would otherwise be costly to dispose of. Furthermore, NNSA has coordinated with the Office of Nuclear Energy on this transfer to ensure consistency with DOE's Uranium Management Strategy. Finally, no Secretarial determination of impacts on the commercial nuclear fuel industry is required under the USEC Privatization Act for this action. (A Secretarial determination is only required for transactions covered by § 3112(d).)

Rather than simply add the additional 250 MT of off-specification LEU to the existing TVA Agreement, NNSA issued a formal request for expressions of interest (REI) in October 2007 to gauge market interest and determine the most cost effective alternative for the disposition of the LEU, consistent with NNSA and DOE missions and policies. After evaluating the responses to the REI and requests for additional information (a total of three responses were received), NNSA determined that TVA's proposal was the most technically sound and financially beneficial to the U.S. taxpayer. TVA was the only company that was able to deliver, process and transport the materials in the forms required by SRS. Moreover, TVA's offer of approximately \$340 million in estimated payments to the U.S. Treasury (at current uranium market prices) is 22 percent higher than the only other expression of interest that included a suggested price. (See Attachment 2.)

SENSITIVITIES: Proposed sales or transfers of DOE uranium to the commercial sector may be scrutinized by elected officials interested in the domestic uranium market.

POLICY IMPACT: None.

URGENCY: None.

RECOMMENDATION: That the Secretary approve the execution of the attached amendment to the DOE-TVA Off-Specification HEU Interagency Agreement to include an additional 250 MT of off-specification LEU.

CONCURRENCES:	GC	Fygi f/Hill	8/13/08
	NE	D. Spurgeon	5/15/08
	EM	J. Rispoli	6/3/08
	CFO	S. Isakowitz	9/5/08

APPROVE: _____



DISAPPROVE: _____

DATE: _____

10/31/08

**U. S. DEPARTMENT OF ENERGY
AND
TENNESSEE VALLEY AUTHORITY**

MODIFICATION

THIS MODIFICATION, entered into as of this _____ of _____ 2008 by and between the Tennessee Valley Authority, a United States Government agency hereafter referred to as TVA, and the United States Department of Energy, a United States Government agency hereafter referred to as DOE.

WITNESSETH THAT:

WHEREAS, on April 5, 2001, DOE and TVA entered into Interagency Agreement No. DE-SA09-01SR18976/ P-01N8A-249655-001, effective as of the same date, for blend-down of Highly Enriched Uranium (HEU), and

NOW, THEREFORE, Agreement No. DE-SA09-01SR18976/ P-01N8A-249655-001 is hereby further modified in the following particulars:

(1) Article II, Scope, paragraph A is changed as follows:

From:

A. DOE agrees to deliver to TVA for processing and use in reactors: (1) LEU which is at a minimum equivalent to **254,000** Kg U at an assay of 4.95% in the form of Low Enriched Uranyl Nitrate at DOE's SRS; (2) Approximately 9,600 Kg U of HEU at an approximate average assay of 55% in the form of metal buttons and 7,400 Kg U of HEU at an approximate average assay of 64% in the form of uranium-aluminum (U-Al) alloy ingots at a TVA designated facility for purposes of processing and down-blending; (3) Approximately 6,100 KgU of HEU at an approximate assay of 62% in various chemical forms; and (4) 485,500 Kg U of natural uranium hexafluoride by "Book Transfer at USEC's enrichment facility.

To:

A. DOE agrees to deliver to TVA for processing and use in reactors: (1) LEU which is at a minimum equivalent to approximately **489,000** Kg U at an assay of 4.95% in the form of Low Enriched Uranyl Nitrate at DOE's SRS; (2) Approximately 9,600 Kg U of HEU at an approximate average assay of 55% in the form of metal buttons and 7,400 Kg U of HEU at an approximate average assay of 64% in the form of uranium-aluminum (U-Al) alloy ingots at a TVA designated facility for purposes of processing and down-blending; (3) Approximately 6,100 KgU of HEU at an approximate assay of 62% in various chemical forms; and (4) 485,500 Kg U of natural uranium hexafluoride by "Book Transfer at USEC's enrichment facility.

(2) Article VII, TVA Blendstock material Delivery to DOE, paragraph A is changed as follows:

From:

A. TVA shall deliver to SRS a minimum of **248,000 Kg U** of natural uranium as uranyl nitrate solution for use as Blendstock Material in this program. This Blendstock material shall comply with the specifications set forth in Attachment 4 of the Interagency Agreement. Delivery by TVA shall be F.O.B. Destination.

To:

A. TVA shall deliver to SRS a minimum of **462,000 Kg U** of natural uranium as uranyl nitrate solution for use as Blendstock Material in this program. This Blendstock material shall comply with the specifications set forth in Attachment 4. Delivery by TVA shall be F.O.B. Destination.

(3) Article XXVII, Options, paragraph A is supplemented by the addition of the following two paragraphs to the paragraph in the current contract.

Beginning in approximately October 2008, DOE will add an additional approximately 21 MTU of surplus HEU material to the BLEU program. TVA will supply blendstock material for the material and will accept in return approximately 250 MT of LEU in the form of uranyl nitrate solution. TVA shall make payment to DOE, based on a sliding scale proportional to the price of natural uranium described below, of all fuel cost savings realized by TVA from use of the approximately 250 MTU of LEU. Cost savings shall be computed in accordance with Article XIII, Sharing of Savings. DOE agrees to accept the additional waste generated under Article XII, Waste Acceptance, with this addition of HEU to the program.

For the material added in this modification, the sharing of the savings is dependent on the average price TVA paid over the previous 18 months for one pound of natural uranium in either the form of U_3O_8 or UF_6 . The percent sharing is a sliding scale as follows:

<u>% sharing to DOE</u>	<u>TVA contract price of One lb of U_3O_8</u>
50	\$40
75	\$150

Linear interpolation will be used between these endpoints and the percent sharing will be fixed at 50% for uranium prices less than \$40 and at 75% for uranium prices greater than \$150. For example, if LEU is delivered to TVA in March of 2009 and the average price of uranium TVA paid in the past 18 months is \$100/lb, then TVA will pay DOE 62.5% of the realized savings.

This payment shall be made six months (to allow for fuel cycles to be run to model the actual loading) after the startup of the cycle in which the material is loaded such that a

payment is made to DOE for each cycle in which BLEU material from this amendment is loaded into a TVA reactor.

- (4) Attachment 1A—Annual Delivery Schedules Attachment 1 is supplemented with the Attachment 1A incorporated into this modification.
- (5) Article XIII, Sharing of Savings, paragraph B.3 is changed as follows to allow time for the non-BLEU fuel cycles to be calculated and the actual fuel cycle cost savings to be determined.

From:

After TVA has ... as provided above. Payments to DOE shall occur within **30 days** after the completion of each HEU-derived fuel reload delivery. For each reload ...

To:

After TVA has ... as provided above. Payments to DOE shall occur within three **months** after the completion of each HEU-derived fuel reload delivery. For each reload ...

- (6) Article XIII, Sharing of Savings, paragraph B.4 is inserted.
 - 4. DOE and TVA agree that Decontamination & Decommissioning (D&D) will be considered as program costs. Both parties agree that this approach is consistent with the intent of the program and mutually beneficial. In order to implement this change, TVA shall keep \$19 million of the sharing payment to be made to DOE in 2010 plus a 10% fee and pay for the first \$19 million of the D&D costs identified in Article V, paragraph C. The \$19 million shall be increased each year by TVA adding to the fund its short term cost of money which is defined by the 2 year Treasury Benchmark Yield plus 0.75%. If the total D&D costs are less than \$19 million plus short-term interest, then TVA shall pay the remainder to DOE. If the D&D costs are greater than \$19 million plus accumulated interest, the parties agree to negotiate in good faith an amendment to equitably address the additional costs consistent with Article V, Paragraph C.
- (7) Article V, DOE Delivery of Highly Enriched Uranium to TVA, paragraph C is changed as follows:

From:

- C. DOE shall reimburse TVA for the Actual Cost(s) incurred to process and blend down the 7,400 KgU of HEU in the form of U-Al alloy ingots and 5,900 KgU of HEU in various chemical forms. Actual Costs shall include DOE's share of decontamination and decommissioning costs associated with the processing, recovery, and blend down of U-Al alloy ingots and the HEU in various other chemical forms. DOE's share of decontamination and decommissioning costs shall be limited to equipment and facilities used solely for processing and blending down of the 13,300 KgU of HEU. TVA shall not finalize its contract with its contractor for this service until after TVA has submitted the relevant portion of the contract and price justification to DOE for review and has received DOE's written

concurrence. TVA shall invoice DOE for the Actual Cost(s) incurred for such HEU processing, recovery, and down blending. DOE shall promptly pay such invoices within thirty (30) days of receipt.

To:

- C. DOE shall reimburse TVA for the Actual Cost(s) incurred to process and blend down the 7,400 KgU of HEU in the form of U-Al alloy ingots and 5,900 KgU of HEU in various chemical forms **less \$19 million plus short term interest held by TVA from DOE's portion of the sharing money calculated in Article XIII Paragraph B.4, Sharing of Savings, for the purpose of paying up to this amount for D&D costs.** Actual Costs shall include DOE's share of D&D costs associated with the processing, recovery, and blend down of U-Al alloy ingots and the HEU in various other chemical forms. DOE's share of D&D costs shall be limited to equipment and facilities used solely for processing and blending down of the 13,300 KgU of HEU. TVA shall not finalize its contract with its contractor for this service until after TVA has submitted the relevant portion of the contract and price justification to DOE for review and has received DOE's written concurrence. TVA shall invoice DOE for the Actual Cost(s) incurred for such HEU processing, recovery, and down blending. DOE shall promptly pay such invoices within thirty (30) days of receipt.

- (8) All other provisions of the Interagency Agreement remain unchanged as of the date written above.

IN WITNESS WHEREOF, this Modification is executed on the day and year first above written.

BY: _____

BY: _____

TITLE: Contracting Officer

TITLE: Contracting Manager

DATE: _____

DATE: _____

Attachment 1A—Annual Delivery Schedules for ~250 MT LEU Addition (Mod 29)

DOE Deliveries to TVA (KgU)					TVA Deliveries to DOE (KgU)
A Fiscal Year	B Planned Low Enriched Uranium as Uranyl Nitrate ¹	C Planned High Enriched Uranium	D Natural Uranium as UF ₆	E Cumulative Equivalent Low Enriched Uranium at 4.95% U-235	F Natural Uranium as Uranyl Nitrate ^{1,2}
2008	0	N/A	N/A		0
2009	16,000			16,000	23,800
2010	24,000			40,000	19,040
2011	20,000			60,000	19,040
2012	16,000			76,000	14,280
2013	20,000			96,000	19,040
2014	24,000			120,000	23,800
2015	24,000			144,000	23,800
2016	24,000			168,000	23,800
2017	28,000			196,000	23,800
2018	28,000			224,000	23,800
2019	26,000			250,000	23,800
TOTAL	~250,000 ³	N/A	N/A	~250,000 ³	238.0 ³

Notes:

- Specific monthly delivery schedules shall be mutually agreed to by DOE and TVA every six months commencing in April 2008.
- Monthly quantities for natural uranium shipments shall be adjusted based on the actual average assays of HEU to be blended at SRS.
- Assumptions:
 - Minimum LEU from SRS = 235,000 KgU @ 4.95% enrichment
 - Minimum natural UN needed at SRS = 214,000 Kg U

Reasonable Value Analysis

It is estimated that this proposal will result in payments to the Treasury of approximately \$340 million at current market prices. This estimate was derived by determining DOE's share of the fuel cost savings associated with the project (market value – costs × percentage to DOE = \$340 million).

Fuel Cost Savings Mechanics

Pursuant to the Interagency Agreement, fuel cost savings are determined by subtracting TVA's to-date, accumulated, total Actual Costs from the to-date, accumulated Normal Fuel Cost, each calculated on a present value basis, discounted to October 1, 2000 with a 7% per year discount rate.

For the material covered by this amendment, TVA will make payments to DOE based on a percent sharing of the fuel cost savings based on a sliding scale as follows:

% sharing to DOE	TVA contract price of one pound of U ₃ O ₈ equivalent
50	\$40
75	\$150

Linear interpolation will be used between these endpoints and the percent sharing will be fixed at 50% for uranium prices less than \$40 and at 75% for uranium prices greater than \$150.

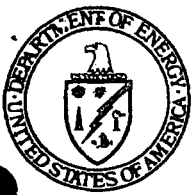
In 2007, NNSA issued a Request for Expressions of Interest (REI) in this material in order to ascertain whether there were any potential purchasers for this material and, if so, what value might reasonably be assigned to the material. Of the three entities that expressed interest in the material, one (Westinghouse) declined to provide any estimate of payments for it even after a specific request for clarification. A second responder (Global Nuclear Fuel) provided a range of values, the top of which was 82% of the value offered by TVA. Only TVA among the responders affirmed its ability to deliver natural uranium diluent to SRS in the form of uranyl nitrate solution, and to accept delivery of LEU at SRS in the same form, as required by the site. In other words, DOE would need to make significant facility modifications at SRS to pursue sales to Westinghouse or GNF.

Deleted:

There is no traditional market for off-specification LEU where this material is traded like on-specification LEU. The current estimated receipts of \$340 million are roughly half of the current market price of an equivalent quantity of on-specification LEU. This amount represents reasonable compensation for this material given that the material does not meet standard commercial specifications, and that sizable investments by DOE or the purchaser

Deleted:

are necessary to process the material and make it into fuel assemblies. In addition, in light of the responses to the REI, this amount can be characterized as "fair market value," since it is the highest value that any potential purchaser assigned to the material. In fact, this amount can be viewed as exceeding "fair market value," since it reflects the unique circumstances where TVA has already made substantial investments to enable it to use off-spec material and to handle solutions as part of the existing Interagency Agreement.



2004-005367

Department of Energy

Washington, DC 20585

JUN 21 2004

Tanner Holloman, Director
Division of Worker's Compensation
Department of Labor and Employment Security
State of Florida
301 Forrest Building
2728 Centerview Drive
Tallahassee, FL 32399-0680

Dear Mr. Holloman:

Please find attached two signed originals of the "Memorandum of Understanding Between the U.S. Department of Energy (DOE) and the State of Florida, Department of Financial Services, Division of Workers' Compensation." Please sign, or have the appropriate official sign both originals and return one of the originals to us in the enclosed self-addressed stamped envelope.

Thank you for your help in finalizing this agreement. We look forward to our continued collaboration as we work to fulfill the mandate of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA).

If you have any questions, please do not hesitate to contact me at 202-586-7449 or Karin Berry at 202-586-5900.

Sincerely,

T. A. Rollow, P.E.
Director
Office of Worker Advocacy
Office of Environment, Safety and Health

Enclosures

Intergovernmental: Memoranda
of Understanding/Agreements



Printed with soy ink on recycled paper

Memorandum of Understanding
Between the U.S. Department of Energy (DOE) and
The State of Florida, Department of Financial Services, Division of Workers'
Compensation

1. PURPOSE

The U.S. Department of Energy (hereinafter "DOE") and the State of Florida, Department of Financial Services, Division of Workers' Compensation (hereinafter "Division") enter into this memorandum of understanding (MOU) to facilitate coordination and cooperation between the parties under Subtitle D of the Energy Employees Occupational Illness Compensation Program Act of 2000 (Act) (Pub.L.#106-398).

2. AGREEMENT AND UNDERSTANDING BETWEEN DOE AND THE DIVISION

The parties enter into this MOU to facilitate operation of the DOE contractor employee assistance program, established pursuant to Subtitle D of the Act, under which DOE may assist former or current contractor employees in filing claims under the State's workers' compensation system.

- A. Pursuant to Subtitle D, and in accordance with process set forth in 10 CFR Part 852, DOE will provide assistance to DOE contractor employees in filing claims under the State of Florida's workers' compensation system for an illness caused by exposure to a toxic substance at a DOE facility.
- B. A positive determination on causality by a Physician Panel under Subtitle D, Part 852 will have no effect on the State's workers' compensation proceedings, the conditions for compensation, or the rights and obligations of the participants in the proceeding; provided, however, that, consistent with Subtitle D, such a determination will require DOE and may require a DOE contractor not to contest an applicant's workers' compensation claim.

3. AREAS OF COOPERATION

- A. DOE agrees to promptly notify the Division's designated representative of claims that DOE has accepted as DOE work-related illnesses caused by exposure to toxic substances, in response to a request for such information by the Division.
- B. Upon request by DOE, the Division agrees to provide, in a timely manner, information in the Division's possession concerning the status or outcome of a workers' compensation claim filed with the Division regarding a DOE contractor employee or the employee's estate.
- C. Participation in this MOU does not constitute concurrence with DOE's position on causality.

4. IMPLEMENTATION

The DOE office responsible for implementation of this MOU is the Office of Worker Advocacy within the Office of Environment, Safety and Health. The State official responsible for the implementation of this MOU is the Director of the Division, or the Director's designee.

5. AMENDMENT AND TERMINATION

This MOU may be amended or modified upon written agreement by both parties, and may be terminated upon (90) days written notice by either party.

6. EFFECTIVE DATE

This MOU is effective when signed by both parties.



Acting Under Secretary
Energy, Science and Environment
U.S. Department of Energy



Director
Division of Workers' Compensation
State of Florida Department of
Financial Services

Dated: _____

**Memorandum of Understanding
Between the U.S. Department of Energy (DOE) and
The State of Florida, Department of Financial Services, Division of Workers'
Compensation**

1. PURPOSE

The U.S. Department of Energy (hereinafter "DOE") and the State of Florida, Department of Financial Services, Division of Workers' Compensation (hereinafter "Division") enter into this memorandum of understanding (MOU) to facilitate coordination and cooperation between the parties under Subtitle D of the Energy Employees Occupational Illness Compensation Program Act of 2000 (Act) (Pub.L.#106-398).

2. AGREEMENT AND UNDERSTANDING BETWEEN DOE AND THE DIVISION

The parties enter into this MOU to facilitate operation of the DOE contractor employee assistance program, established pursuant to Subtitle D of the Act, under which DOE may assist former or current contractor employees in filing claims under the State's workers' compensation system.

- A. Pursuant to Subtitle D, and in accordance with process set forth in 10 CFR Part 852, DOE will provide assistance to DOE contractor employees in filing claims under the State of Florida's workers' compensation system for an illness caused by exposure to a toxic substance at a DOE facility.
- B. A positive determination on causality by a Physician Panel under Subtitle D, Part 852 will have no effect on the State's workers' compensation proceedings, the conditions for compensation, or the rights and obligations of the participants in the proceeding; provided, however, that, consistent with Subtitle D, such a determination will require DOE and may require a DOE contractor not to contest an applicant's workers' compensation claim.

3. AREAS OF COOPERATION

- A. DOE agrees to promptly notify the Division's designated representative of claims that DOE has accepted as DOE work-related illnesses caused by exposure to toxic substances, in response to a request for such information by the Division.
- B. Upon request by DOE, the Division agrees to provide, in a timely manner, information in the Division's possession concerning the status or outcome of a workers' compensation claim filed with the Division regarding a DOE contractor employee or the employee's estate.
- C. Participation in this MOU does not constitute concurrence with DOE's position on causality.

4. **IMPLEMENTATION**

The DOE office responsible for implementation of this MOU is the Office of Worker Advocacy within the Office of Environment, Safety and Health. The State official responsible for the implementation of this MOU is the Director of the Division, or the Director's designee.

5. **AMENDMENT AND TERMINATION**

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6. **EFFECTIVE DATE**

This MOU is effective when signed by both parties.



Acting Under Secretary
Energy, Science and Environment
U.S. Department of Energy



Director
Division of Workers' Compensation
State of Florida Department of
Financial Services

Dated: _____

Harper, Delphine

From: Keating, Judy
Sent: Monday, June 21, 2004 1:16 PM
To: Harper, Delphine
Subject: Florida Division of Workers' Compensation Phone Number

Director's Office (850) 413-1600

**GUIDING PRINCIPLES
FOR
FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE
BUILDINGS**

I. EMPLOY INTEGRATED DESIGN PRINCIPLES

Integrated Design. Use a collaborative, integrated planning and design process that:

- Initiates and maintains an integrated project team in all stages of a project's planning and delivery;
- Establishes performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals; and, ensures incorporation of these goals throughout the design and lifecycle of the building; and,
- Considers all stages of the building's lifecycle, including deconstruction.

Commissioning. Employ total building commissioning practices tailored to the size and complexity of the building and its system components in order to verify performance of building components and systems and help ensure that design requirements are met. This should include a designated commissioning authority, inclusion of commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report.

II. OPTIMIZE ENERGY PERFORMANCE

Energy Efficiency. Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the Energy Star® targets for new construction and major renovation where applicable. For new construction, reduce the energy cost budget by 30 percent compared to the baseline building performance rating per American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential. For major renovations, reduce the energy cost budget by 20 percent below pre-renovations 2003 baseline.

Measurement and Verification. In accordance with DOE guidelines issued under section 103 of the Energy Policy Act of 2005 (EPAct), install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. Compare actual performance data from the first year of operation with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Benchmarking Tool for building and space types covered by Energy Star®. Enter data and lessons learned from

sustainable buildings into the High Performance Buildings Database.
(www.eere.energy.gov/femp/highperformance/index.cfm)

III. PROTECT AND CONSERVE WATER

Indoor Water. Employ strategies that in aggregate use a minimum of 20 percent less potable water than the indoor water use baseline calculated for the building, after meeting the Energy Policy Act of 1992 fixture performance requirements.

Outdoor Water. Use water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 50 percent over that consumed by conventional means (plant species and plant densities). Employ design and construction strategies that reduce storm water runoff and polluted site water runoff.

IV. ENHANCE INDOOR ENVIRONMENTAL QUALITY

Ventilation and Thermal Comfort. Meet the current ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62-2004, Ventilation for Acceptable Indoor Air Quality.

Moisture Control. Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage and mold contamination.

Daylighting. Achieve a minimum of daylight factor of 2 percent (excluding all direct sunlight penetration) in 75 percent of all space occupied for critical visual tasks. Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control.

Low-Emitting Materials. Specify materials and products with low pollutant emissions, including adhesives, sealants, paints, carpet systems, and furnishings.

Protect Indoor Air Quality during Construction. Follow the recommended approach of the Sheet Metal and Air Conditioning Contractor's National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 1995. After construction and prior to occupancy, conduct a minimum 72-hour flush-out with maximum outdoor air consistent with achieving relative humidity no greater than 60 percent. After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials.

V. REDUCE ENVIRONMENTAL IMPACT OF MATERIALS

Recycled Content. For EPA-designated products, use products meeting or exceeding EPA's recycled content recommendations. For other products, use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10 percent (based on cost) of the total value of the materials in the project.

Biobased Content. For USDA-designated products, use products meeting or exceeding USDA's biobased content recommendations. For other products, use biobased products made from rapidly renewable resources, and certified sustainable wood products.

Construction Waste. During a project's planning stage, identify local recycling and salvage operations that could process site related waste. Program the design to recycle or salvage at least 50 percent construction, demolition and land clearing waste, excluding soil, where markets or on-site recycling opportunities exist.

Ozone Depleting Compounds. Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall climate change benefits that take into account life cycle impacts.



Department of Energy

Washington, DC 20585

December 19, 2005

2005-013449

MEMORANDUM FOR THE DEPUTY SECRETARY

THROUGH:

DAVID K. GARMAN
UNDER SECRETARY OF ENERGY, SCIENCE
AND ENVIRONMENT

LINTON F. BROOKS *LFB*
UNDER SECRETARY AND ADMINISTRATOR
NATIONAL NUCLEAR SECURITY ADMINISTRATION

FROM:

DOUGLAS L. FAULKNER *Douglas L. Faulkner*
ACTING ASSISTANT SECRETARY
ENERGY EFFICIENCY AND RENEWABLE ENERGY

SUBJECT:

ACTION: Request Your Approval to Sign the Attached
Memorandum of Understanding (MOU) for Federal Leadership
in High Performance Sustainable Buildings

ISSUE:

A signing ceremony will occur on January 24, 2006, during the
White House Summit on Federal Sustainable Buildings (TAB
A). An invitation to sign the MOU was forwarded to DOE by
Edwin Piñero, the Federal Environmental Executive, on
November 1, 2005 (TABS B & C).

BACKGROUND:

The MOU is supported by the Office of the Federal
Environmental Executive (OFEE) and the Office of Management
and Budget. The MOU has been approved by the Council of
Environmental Quality and the White House Legal Council
(TAB D). OFEE has indicated that the Department of Defense;
Environmental Protection Agency, National Aeronautics and
Space Administration; and the General Services Administration
will be among the signatory agencies.

OFEE presented a draft MOU at the Senior Energy,
Transportation and Environmental Executive's meeting on
February 25, 2005, and asked each agency to provide comments
to OFEE by March 25, 2005. DOE complied with this request
(TABS E & F).



The following DOE offices supported the draft MOU in principle, and offered comments: Building Technologies (EE-2J), Engineering and Construction (ME-90), Environment (EH-4), and the Departmental Energy Management Program (EE-2L). DOE's Federal Energy Management Program (FEMP) considered these comments as a basis for drafting the redlined version of the MOU provided to OFEE.

The draft MOU was reviewed and approved by Larry Oliver, David Krentel and Susan Beard at the DOE Office of General Council (OGC) with the inclusion of language regarding enforcement, and obligation of funds. The White House General Council has provided similar language in the final MOU that encompasses the spirit of the DOE OGC language.

The MOU for Federal Leadership in High Performance and Sustainable Buildings was spearheaded by OFEE. The FEMP-sponsored Interagency Sustainability Working Group (ISWG) drafted performance measures and standard practices for energy efficiency, measurement and verification, water conservation, indoor environmental quality, and materials for new Federal buildings and major renovations which served as the basis for the MOU's Guiding Principles. Both the MOU and the Guiding Principles have been updated by OFEE to reflect comments provided by the Federal agencies as well and to comply with Energy Policy Act of 2005 (EPAct) requirements.

Although more than \$20 billion is spent annually on acquiring or substantially renovating Federal facilities, there are no consistent, government-wide policies or guidelines that set forth high performance, sustainable objectives. Establishing baseline performance metrics can help the Federal government achieve energy and water efficiency goals.

The ISWG is chaired by FEMP, and is composed of a cross section of over 20 Federal agencies. The ISWG will provide technical guidance for implementing the MOU's performance metrics.

SENSITIVITIES:

Multiple requirements and analysis for sustainable design may increase design time and first cost of construction, but lower life-cycle costs.

The MOU currently specifies that agencies will incorporate goals into policy and guidance within 180 days.

There is potential for increased agency reporting if OMB incorporates these guidelines into the agency scorecards.

POLICY IMPACT:

The President's Management Agenda stresses performance measures and metrics; the MOU is using performance measures and metrics to assess energy and water consumption.

Several of the MOU components support issues addressed in EAct 2005. Related items include: energy reduction goals; metering or submetering; commissioning, application of sustainable design principles; procurement of Energy Star or FEMP-designated products; and the expansion of the definition of energy savings to include reduced water costs.

RECOMMENDATION:

That you authorize the Acting Assistant Secretary to sign the attached MOU.

Attachments

Approve: _____

Disapprove: _____

Date: _____

**FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE
BUILDINGS**

**DRAFT-DELIBERATIVE 11.1.05
MEMORANDUM OF UNDERSTANDING**

PURPOSE:

With this Memorandum of Understanding (MOU), signatory agencies commit to federal leadership in the design, construction, and operation of High-Performance and Sustainable Buildings. A major element of this strategy is the implementation of common strategies for planning, acquiring, siting, designing, building, operating, and maintaining High Performance and Sustainable Buildings. The signatory agencies will also coordinate with complementary efforts in the private and public sectors.

BACKGROUND AND FEDERAL POLICY:

The Federal government owns approximately 445,000 buildings with total floor space of over 3.0 billion square feet, in addition to leasing an additional 57,000 buildings comprising 374 million square feet of floor space. These structures and their sites affect our natural environment, our economy, and the productivity and health of the workers and visitors that use these buildings.

Therefore, the Federal government is committed to designing, locating, constructing, maintaining, and operating its facilities in an energy efficient and sustainable manner that strives to achieve a balance that will realize high standards of living, wider sharing of life's amenities, maximum attainable reuse and recycling of depletable resources, in an economically viable, manner, consistent with Department and Agency missions. In doing so and where appropriate, we encourage the use of life cycle concepts, consensus-based standards, and performance measurement and verification methods that utilize good science, and lead to sustainable buildings.

GOALS AND OBJECTIVES OF THIS MOU

Consistent with and in addition to Federal policy, statutes, executive orders and supplemental agency policies and guidance, the Parties to this MOU collaboratively seek to establish and follow a common set of sustainable Guiding Principles (attached) for integrated design, energy performance, water conservation, indoor environmental quality, and materials aimed at helping Federal agencies and organizations:

- Reduce the total ownership cost of facilities;
- Improve energy efficiency and water conservation;
- Provide safe, healthy, and productive built environments; and,
- Promote sustainable environmental stewardship.

OTHER LAWS AND MATTERS: This MOU is for internal management purposes of the parties involved. It is not legally enforceable and shall not be construed to create any legal obligation on the part of any of the signatories. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity. This MOU in no

way restricts the parties from participating in any activity with other public or private agencies, organizations or individuals.

The Parties mutually recognize and acknowledge that MOU implementation will be subject to financial, technical, and other mission-related considerations. It is not intended to create any rights, benefits, or trust responsibilities, either substantive or procedural, nor is it enforceable in law by a party against the U.S., its agencies, its officers, or any other person.

Collaboration under this MOU will be in accordance with applicable statutes and regulations governing the respective Parties. Nothing in this MOU is intended to affect existing obligations or other agreements of the Parties.

EFFECTIVE PERIOD: This MOU will become effective upon signature. It shall remain in effect unless otherwise modified or terminated. Any party may withdraw upon 30 days written notification to the others.

MODIFICATIONS: This MOU can be modified through mutual written agreement among the Parties.

ADMINISTRATION: Agencies will strive to incorporate and adopt, as appropriate and practical, the attached *Guiding Principles* into existing agency policy and guidance within 180 days of signature. To assist with this effort, the Interagency Sustainability Working Group (ISWG) will provide technical guidance and updates for the *Guiding Principles*.

The Office of Federal Environmental Executive will work with the ISWG and Federal Green Building Council to develop methods of reporting on progress towards this MOU in a manner that is least burdensome to the agencies. This may include incorporating reporting into existing mechanisms, such as executive order reports; but in any case with a goal of avoiding a separate reporting process.

SIGNATORIES

The undersigned individuals hereby execute this MOU on behalf of their respective agencies. The Parties envision that other Federal agencies may wish to join this MOU. The Parties encourage all Federal agencies that support the MOU goal and objectives to do so by signing the MOU and applying the *Guiding Principles*.

**APPENDIX 1
UNDER THE
THIRD IMPLEMENTING ARRANGEMENT
OF THE MEMORANDUM OF UNDERSTANDING
BETWEEN THE U.S. DEPARTMENT OF ENERGY
AND RUSSIAN ACADEMY OF SCIENCES
ON COOPERATION IN SCIENCE AND TECHNOLOGY**

**DEVELOPMENT OF MEMBRANES AND MEMBRANE ELECTRODE
ASSEMBLIES WITH IMPROVED PARAMETERS**

Background:

At the present time, only perfluorinated membranes have been successfully tested in long life-time experiments in Polymer-Electrolyte-Membrane Fuel Cells (PEMFC). Although these materials showed good mechanical, chemical and electrochemical stability, the price of the industrially produced membranes (Nafion) is high, which impedes commercialization of the PEMFC. At the same time there are some problems with the water management of these membranes, which are affected by chemical composition, structure and thickness. Traditional production of the membranes by extrusion does not permit much variation of the membrane properties, or the ability to produce membranes with small thickness.

Previous research at Kurchatov Institute showed that membrane solutions can be successfully used for such membrane production so as to permit "constructing" membranes layer by layer, thereby varying composition and conditions of casting. For this purpose, membrane solutions with higher concentration (than Nafion's), with different exchange capacity and in different solvent are very useful. At the same time, membrane solutions are used for catalytic layer application on the membrane surface. In this case, the variation of solution properties mentioned above are extremely important as for cathode and anode different exchange capacity must be used and variation of concentration and type of the solvent permit to vary structure of the catalytic layer (for example to vary porosity).

Objective:

The objective of this study is to further develop the membrane materials being advanced by Dr. Vladimir N. Fateev of Kurchatov. With further development, these membranes could become a valuable option to the high-cost Nafion membranes currently on the market. The newly developed membranes advanced by Dr. Fateev will be sent to DOE's National Energy Technology Laboratory (NETL), for testing and validation. NETL has test facilities capable of investigating the properties of membrane materials, and access to other facilities if required.

Benefit to DOE:

Improved fuel cell membrane material is needed to make state-of-art fuel cell technology commercially viable. Present cells often last only 5000 hours, a factor of 10 less than what is needed for most stationary power applications being advanced by DOE. If these

membranes can be developed, tested, and shown to be viable materials for commercial applications, this will significantly advance DOE's Fuel Cell programs.

Workscope:

These membranes require further development and tests. Development will occur at Kurchatov Institute, and testing will occur at NETL. The data from the tests at NETL and any other sources will be documented and published in open technical literature and conferences.

At a minimum, the parameters to be measured are: membrane conductivity under various conditions, and membrane strength. In addition, standard techniques will be employed to construct membrane electrode assemblies used in fuel cells. These will be compared to other data available in the literature.

Both parties have reached an agreement in principle whereby the proprietary manufacturing techniques are protected. Only parameters that relate to the performance of the membranes will be published, as well as any other information provided to NETL under this Implementation.

Duration:

2 Years.

Expected Results:

Fundamental data will be obtained on the membrane strength, conductivity, and fuel cell performance. The data will be compared to state-of-art technology and published in the open literature.

Laboratory Tasks:

1. Detailed plan of the research. A more detailed plan than what is described in this Appendix is required. Duration: 1 month. Cost: \$1,500. Deliverable: Brief report.
2. Preliminary research on the membrane solutions and membrane optimization. Duration: 3 months. Cost: \$5,000. Deliverables: Brief report describing necessary details of membrane and solution to allow NETL researchers to manufacture membrane electrode assemblies (MEAs). Delivery of standard membranes (1,5 m²), membrane solutions (2 types, 0,5 liter each).
3. Research on membrane, membrane solutions and MEAs optimization. Duration: 8 months. Cost \$7,000. Deliverable: Report.
4. New modifications of membrane, membrane solutions and MEAs optimization and production. Duration: 12 months. Cost: \$11,500. Deliverables: Final report describing necessary details of membrane and solution to allow NETL researchers to manufacture MEAs, and describing necessary details of the MEA so as to allow NETL researchers to compare performances of the delivered MEAs with the NETL manufactured MEAs. Delivery of experimental samples of membranes (0,7 m²), membrane solutions (2 samples – total – 0,8 liter) and MEAs (6 samples with surface area 50 cm² each).

5. Publication of results. To make the work most useful to the U.S., a joint technical report will be generated between researchers at NETL and Kurchatov Institute, which will be made public, both in technical journals and conferences.

Effort and Schedule:

The schedule for this project are shown in the following table. Refinements to this schedule are likely, following the detailed plan provided as part of Task 1.

Task	Year 1				Year 2			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
1. Detailed Plan								
2. Preliminary Research								
3. Detailed Research								
4. Final Modifications to Membrane								
5. Publication								

Quarterly Product Schedule:

Quarter	Deliverable	Title	Due Date (from start)
1	Product 1	Detailed Project Plan Report	1
1	Product 2.1	Details of Membrane and Solution	3
1	Product 2.2	Standard Membranes (5 m2) Membrane Solutions (0.5 liter each)	3
3	Product 3	Detailed Report on Membrane Research and Optimization	8
8	Product 4.1	Final Report.	12
8	Product 4.2	Delivery of Experimental Samples of Membranes	12
8	Product 5	Public Domain Publication	12

Personnel:

Researchers from Kurchatov Institute, and some DOE personnel.

Principle Investigators:

For DOE: Dr. Randall S. Gemmen, NETL

For Kurchatov Institute: Dr. Vladimir N. Fateev, Researcher

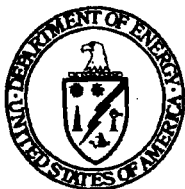
Proposed Period of Performance and Payment Schedule:

This project will be conducted over a 24-month period. The beginning of the contract is anticipated to be May 1, 2001. The completion of the project is April 30, 2003.

Agreement has been reached by both parties that the funding will be approximately \$25,000 USD for the entire two years. The funding level will be reviewed each year. Final resolution of the detailed work plan, work schedule and payment plan will be negotiated by DOE/NETL and the Financial Agreement will be negotiated on behalf of DOE/NETL by CRDF or other appropriate vehicle and the Kurchatov Institute.

DEVELOPMENT OF MEMBRANES AND MEMBRANE ELECTRODE ASSEMBLIES WITH IMPROVED PARAMETERS

Vladimir N. Fateev	Date
Project Director	
Kurchatov Institute, HEPTI	



Department of Energy
Washington, DC 20585

July 27, 2001

MEMORANDUM FOR THE SECRETARY

FROM

David L. Pumphrey,
Acting Director,
Office of International Affairs

A handwritten signature in dark ink, appearing to read "David Pumphrey", is written over the typed name and title.

SUBJECT

Third Implementing Arrangement under the Department of Energy – Russian Academy of Sciences MOU (DOE/RAS MOU).

ISSUE

To seek approval for signature of the third Implementing Arrangement, and its subsidiary Appendix, under the DOE/RAS MOU.

BACKGROUND

Former Secretary Richardson and Vice President Laverov of the Russian Academy of Sciences on March 24, 1999 signed the DOE/RAS MOU (Attachment 1). This cooperation leverages scarce R&D funds by utilizing relatively inexpensive Russian scientists to support and further important US domestic scientific research.

Former Under Secretary of Energy Moniz and Vice President Laverov signed two Implementing Arrangements under the MOU on geologic repository science and environmental remediation on May 15, 2000. There are currently 6 active appendices under these Implementing Arrangements, with more under discussion, involving several million dollars over the next several years. This third Implementing Arrangement (Attachment 2) on fuel cells was initiated in Moscow in January 2001 and awaits signature.

This new Implementing Arrangement on fuel cell technology has as its objectives: identifying applications of fuel cell technology in both stationary and mobile systems, developing system designs, and producing guidelines for designers and system users; addressing fundamental problems in fuel cell development and deployment; and demonstration of fuel cell systems in favorable niche applications to disseminate the benefits of fuel cells and to promote further additional market opportunities.

Additionally, the National Energy Technology Laboratory (NETL) in coordination with the Office of International Affairs has prepared an Appendix (Attachment 3) to this Implementing Arrangement, which allows for research and development of fuel cell membranes and membrane electrode assemblies. This research will advance US research on the development of Polymer-Electrolyte-Membrane Fuel Cells (PEMFC).

The project outlined in the Appendix will be conducted over a 24-month period. Agreement has been reached by both parties that the funding will be approximately \$25,000 USD for the entire two years with funding levels to be reviewed each year. Funds will be provided by FE.



RECOMMENDATION

The Secretary approve and authorize the Acting Director for International Affairs, or his delegee, to sign the third Implementing Arrangement and Appendix 1 under the DOE/RAS MOU.

CONTACT

David Pumphrey, Acting Director, Office of International Affairs, X6-2581.

CONCUR

NON-CONCUR

DATE

August 13, 2001

ATTACHMENTS:

- 1) Memorandum of Understanding Between the U.S. Department of Energy and Russian Academy of Sciences on Cooperation in Science and Technology.
- 2) Third Implementing Arrangement on fuel cell technology.
- 3) Appendix 1 to the third Implementing Arrangement.

**IMPLEMENTING ARRANGEMENT
BETWEEN THE
DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND THE
DEPARTMENT OF NATURAL RESOURCES CANADA
FOR COOPERATION
IN THE AREAS OF MICROGENERATION AND COMMUNITY ENERGY SYSTEMS**

WHEREAS

The Department of Energy of the United States of America (DOE) and the Department of Natural Resources Canada (NRCan), hereinafter referred to as the "Participants";

Noting the Memorandum of Understanding on Collaboration in Energy Research and Development (hereinafter referred to as the Energy R&D MOU) between the Participants signed on March 18, 1998, supports wide cooperation in the areas energy of research and development;

Recognizing the long history of productive cooperation between the Participants both informally and formally;

Believing the Participants continue to have capabilities which can assist each other in their effort to advance the status of research and development in microturbines, heat recovery systems, district energy systems and renewable energy systems and their integration into buildings, community systems or industry; and

Noting that Article 4 of the Energy R&D MOU provides for the execution of written Implementing Arrangements governing cooperation under the Energy R&D MOU;

It Is Therefore Agreed as Follows:

Article 1 - Objective

The Participants agree to establish a framework for collaboration in the field microturbines, heat recovery systems, district energy systems and renewable energy systems and their integration into buildings, community systems or industry to fulfill the purposes of the Energy R&D MOU.

This Implementing Arrangement is subject to and governed by the Energy R&D MOU. In the event of any conflict between the terms and conditions of that MOU and this Implementing Arrangement, the terms and conditions of the MOU will govern.

Article 2 - Areas of Cooperation

1. The areas of mutual interest between the Participants are as follows:
 - a. Advanced Microturbine Systems;
 - b. Microturbine Heat recovery systems and associated field trials;
 - c. District or Community Energy Systems and associated feasibility studies ;
 - d. Power park-scale renewable technologies including but not limited to photovoltaics, geothermal energy, wind energy and solar building technologies;
 - e. Building integration studies and analysis, including building connection systems; and
 - f. Power park interconnection technologies for advanced microgrids.
2. Other areas of cooperation may be added by mutual written agreement of the Participants in the form of an exchange of letters between the Lead Coordinators for the Energy R&D MOU.

Article 3 - Forms of Cooperation

Cooperation in accordance with this Implementing Arrangement may include, but is not limited to, the following forms:

1. Exchange and provision of information and data on scientific and technical activities, developments, practices and results, and on program policies and plans including exchange of proprietary information on the terms and conditions in accordance with Article 8;
2. Exchange of scientists, engineers, and other specialists for agreed periods of time in order to participate in experiments, analysis, design and other research and development activities at existing and new research centers, laboratories, engineering offices and other facilities and enterprises of each of the Participants or its associated organizations or contractors in accordance with Article 5;
3. Meetings and conferences of various forms to discuss and exchange information on scientific and technological aspects of general or specific subjects in the areas listed in Article 2 and to identify additional cooperative actions which may be usefully undertaken;

4. Exchange and provision of samples, materials, and equipment for experiments, testing and evaluation in accordance with Articles 6 and 7; and
5. Execution of joint studies, including feasibility studies, projects or experiments including their joint design, construction and operation.

The Participants may agree in writing to other areas of collaboration.

Article 4 - Management

1. The Participants will establish a Joint DOE/NRCan Coordinating Committee (JCC) for Microturbines and Community Energy Systems to direct the execution of this Implementing Arrangement. Membership of the JCC will consist of designated and equal representation from each Participant and can include up to three representatives from each Participant. These members will meet at agreed times and places. The Head of the Delegation of the receiving Participant will act as Chairperson during the meetings of the JCC.
2. The JCC will coordinate its activities with the Lead Coordinators designated under Article 5 of the Energy R&D MOU.
3. At its meetings, the JCC will evaluate the status of cooperation under this Implementing Arrangement. This evaluation will include an assessment of the balance of exchanges in the various areas of cooperation listed in Article 2, and, if necessary, a consideration of measures required to correct any imbalances.

Article 5 - Assignments and Exchanges of Personnel

Unless otherwise agreed in writing, the following provisions shall apply concerning assignments and exchanges of personnel under this Implementing Arrangement:

1. Each Participant may, at its own expense, and subject to agreement of the other Participant, observe test activities and analytical work of the other Participant. Such observation may be accomplished by short-term visits or by the assignment of staff, subject to the prior agreement of the receiving Participant on each occasion.
2. Whenever an assignment or exchange of staff is contemplated under this Implementing Arrangement, each Participant shall ensure the selection of qualified staff for assignment to the other Participant to conduct the activities planned under this Implementing Arrangement. Each such exchange of personnel shall be mutually agreed in advance by an exchange of letters between the Participants, referencing this Implementing Arrangement and its pertinent Intellectual Property provisions.

3. Each Participant shall be responsible for the salaries, insurance, and allowances to be paid to its staff or contractors.
4. Each Participant shall pay for the travel and living expenses of its staff while on assignment to the host Participant.
5. Each Participant shall arrange for accommodations for other Participant's assigned staff or its contractors (and their families) on a mutually agreeable reciprocal basis.
6. The host Participant shall provide all necessary assistance to the assigned staff or its contractors (and their families) of the other Participant regarding administrative formalities.
7. The staff of each Participant, and its contractors, shall conform to the general and special rules of work and safety regulations in force at the host establishment.

Article 6 - Equipment

Unless otherwise agreed in writing, the following provisions shall apply to the provision of equipment by one Participant to the other under this Implementing Arrangement:

1. The sending Participant shall supply as soon as possible a detailed list of the equipment and data (such as AutoCad data) to be provided together with the associated specifications and technical and informational documentation.
2. The equipment, spare parts, data and documentation supplied by the sending Participant shall remain the property of the sending Participant and shall be returned to the sending Participant upon completion of the mutually agreed upon activity unless otherwise agreed.
3. The host establishment shall provide the necessary premises, shelter and software for the equipment and data, and shall provide for electric power, water, gas, etc., in accordance with all technical requirements which shall be as mutually agreed upon.
4. The sending Participant shall bear all expenses and risks for shipment of equipment to the place of delivery of the receiving Participant. Upon receipt, the latter becomes responsible for the equipment.
5. The equipment provided by the sending Participant for carrying out mutually agreed-upon activities shall be considered to be scientific, not having a commercial character.

Article 7 - Samples and Materials

Unless otherwise agreed in writing, the following provisions shall apply to the transportation and use of samples, materials and data by one Participant to the other under this Implementing Arrangement:

1. All samples, materials and data provided by the sending Participant to the receiving Participant shall become the property of the receiving Participant upon delivery, and shall not be returned to the sending Participant.
2. Where one Participant requests that samples, materials and data be provided by the other Participant, the Participant making the request shall bear all costs and expenses associated with the transportation of the sample, materials or data from the location of the sending Participant to the final destination.
3. Each Participant shall promptly disclose to the other Participant all information arising from the examination or testing of samples, materials and data exchanged under this Implementing Arrangement. The Participants agree that business confidential information as defined in Article 8.IV. which was developed prior to or outside the scope of this Agreement, shall remain business confidential even though it is contained in the results of an examination or testing of samples or materials. Such information shall be identified as business confidential by the Participant asserting its business confidential nature as soon as possible after disclosure is made to such Participant and the other Participant shall be immediately advised of that identification. All information identified as business confidential shall be controlled as provided under Article 8.IV. It is further understood and agreed that one Participant providing samples or materials to the other Participant may also provide a partial or complete list of the types of information which will arise from the examination or testing of such samples or materials and which is business confidential as defined in Article 8.IV. and all such business confidential information is to be controlled as set out in Article 8.IV.

Article 8 - Intellectual Property Rights

In conformity with the U.S.-Canada Agreement effected by exchange of notes at Ottawa, February 4, 1997, concerning Intellectual Property rights:

The Participants shall ensure adequate and effective protection of Intellectual Property created or furnished in the course of Cooperative Research activities conducted under this Implementing Arrangement. Rights to such Intellectual Property shall be allocated as set forth below:

I. Definitions

- a. For purposes of this Implementing Arrangement, "Intellectual Property" shall have the meaning found in Article 2 of the Convention establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.

- b. "Cooperative Research" means any activity carried on under this Implementing Arrangement between the Participants.
- c. "Written Agreement" means an agreement between the Participants regarding a specific Cooperative Research activity which may incorporate the terms of these provisions.

II. Scope

- a. Any Intellectual Property created as a result of the Cooperative Research activities undertaken between the Participants shall be allocated according to the terms of this Article, unless otherwise specifically agreed by the Participants in writing.
- b. This Article addresses the allocation of rights, interests, and royalties between the Participants with respect to Cooperative Research conducted under this Implementing Arrangement. Each Participant that is involved in a Cooperative Research activity shall ensure that the other Participant can obtain the rights to Intellectual Property allocated in accordance with this Article. The Participants shall notify one another in a timely fashion of any Intellectual Property arising in the course of Cooperative Research and protect such Intellectual Property in a timely fashion. This Article does not otherwise alter or prejudice the allocation of Intellectual Property between a Participant and its nationals, which shall be determined by the laws and practices of that Participant.
- c. Disputes concerning Intellectual Property arising under this Implementing Arrangement shall be resolved in accordance with any applicable Written Agreements between the Participants, except that such Written Agreements shall not include provisions which call for binding arbitration. In the event that an applicable Written Agreement does not include a dispute resolution mechanism, disputes arising under such an arrangement shall be resolved through discussions between the Participants. Upon mutual agreement of the Participants, a dispute shall be submitted to an arbitral tribunal for binding arbitration. Unless the Participants agree otherwise in writing, the arbitration will be governed by the rules of UNCITRAL. From the date of receipt of an official request by a Participant for arbitration and pending resolution of the matter the Intellectual Property shall be jointly managed (i.e., Intellectual Property shall be jointly maintained) by the Participants, but shall not be commercially exploited except by mutual agreement, in writing.
- d. Termination or expiration of this Implementing Arrangement shall not affect the validity or duration of Intellectual Property rights or obligations that arise while this Implementing Arrangement is in force.

III. Allocation of Rights

- a. Each Participant shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, public reports, and books directly arising from Cooperative Research. Notwithstanding the preceding sentence, the Participants shall abide by requirements for publication of scientific journals and books, including publishers' rights, where appropriate, when doing so would promote dissemination of information. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.
- b. Rights to all forms of Intellectual Property, other than those rights described in Article 8.III.a. above, shall be allocated as follows:
 - 1) Visiting researchers shall receive rights to Intellectual Property according to the policies of the host institution. In addition, each visiting researcher named as an inventor/creator of Intellectual Property shall be entitled to the same treatment as accorded a national of the host country who is a visiting researcher with regard to awards, bonuses, benefits, royalties or any other awards, in accordance with the policies and laws of the host institution.
 - 2) (a) For Intellectual Property created during joint research, when the Participants have agreed in advance on the scope of work, the Participants shall agree upon a Written Agreement concerning the protection and allocation of rights regarding Intellectual Property that may be created during such research, either prior to the start of their cooperative activity or within a reasonable time from the time a Participant becomes aware of the creation of Intellectual Property.

(b) In reaching agreement, the Participants shall consider the following factors: relative contributions of the Participants, the benefits of exclusive or non-exclusive licensing by territory or for field of use, requirements imposed by the Participants' domestic laws, and other factors deemed appropriate. The Written Agreement will normally address inter alia: ownership and protection of background and foreground information, user rights for research and development purposes, exploitation and dissemination, including arrangements for joint publication, the rights and obligations of visiting researchers, the rules governing disclosure of undisclosed information, licensing and dispute settlement procedures.

(c) Notwithstanding the foregoing, in light of the Free Trade Agreement between the Governments of the United States and Canada, if the Participants cannot reach agreement on a Written Agreement within a reasonable time, not to exceed nine months from the time each Participant is made aware of the creation of the Intellectual Property, the Participants shall jointly seek protection for the

Intellectual Property in both countries. Each Participant shall control Intellectual Property in its territory and in all cases shall allow full market access to the other Participant to exploit their Intellectual Property rights in accordance with the factors listed in Article 8.III.b.(2)(b). Rights and interests in third countries shall be jointly determined.

3) In the event that either Participant believes that a particular joint research project under this Implementing Arrangement will lead to, or has led to, the creation of Intellectual Property of a type not protected by the applicable laws of one of the Participants, except in the case of copyright being unavailable for the works of the United States of America, the Participants shall immediately hold discussions to determine the allocation of the rights to the said Intellectual Property; the joint activities in question will be suspended during the discussions unless otherwise agreed in writing by the Participants. If no agreement can be reached within a three-month period from the date of the request for discussions, the Participants shall cease the cooperation in the project in question. Notwithstanding Article 8.III.b.(2), rights to any Intellectual Property which has been created will be resolved in accordance with the provisions of Article 8.II.c.

IV. Business-Confidential Information

In the event that information identified in a timely fashion as business-confidential is furnished or created under this Implementing Arrangement, each Participant shall protect such information in accordance with applicable laws, regulations and administrative practice. Information may be identified as business-confidential if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential. Without prior written consent, neither Participant shall disclose any business-confidential information provided by the other Participant except to contractor employees and government personnel authorized for this Implementing Arrangement. All such disclosures shall be for use only within the scope of their contracts or employment with the Participants relating to cooperation under this Implementing Arrangement. The Participants shall impose, or shall have imposed, an obligation on those receiving such information to keep it confidential. If one of the Participants becomes aware that, under its laws or regulations, it will be, or may reasonably be expected to become, unable to meet the non-disclosure provisions, it shall immediately inform the other Participant. The Participants shall thereafter consult to define an appropriate course of action.

Article 9 - General Provisions

1. Cooperation under this Implementing Arrangement shall be in accordance with the laws and regulations of the respective countries. All questions related to the Implementing Arrangement arising during its term shall be settled by the Participants by mutual agreement.

2. It is understood that this Implementing Arrangement does not constitute a treaty. The obligations described herein are binding and enforceable in accordance with the existing domestic laws of both countries.

Article 10 - Funding

Unless otherwise specifically agreed to in writing by the Participants, all costs resulting from cooperation under this Implementing Arrangement will be borne by the Participant that incurs them. Each Participant shall carry out its obligations under this Implementing Arrangement subject to the availability of appropriated funds.

Article 11 - Duration and Termination

1. This Implementing Arrangement shall enter into force upon signature by both Participants and shall remain in force for five (5) years and may be automatically extended for another five (5) years upon written agreement of the Participants.
2. This Implementing Arrangement may be amended by mutual written agreement of the Participants. This Implementing Arrangement may be terminated upon six (6) months advance notification in writing by either Participant. Such termination shall be without prejudice to any rights and interests which may have accrued under this Implementing Arrangement to either Participant up to the date of termination.
3. All joint efforts and experiments not completed at the expiration or termination of this Implementing Arrangement may be continued until their completion under the terms of this Implementing Arrangement.

Done in duplicate in English and French, each version being equally authentic.

FOR THE
DEPARTMENT OF ENERGY
OF THE
UNITED STATES OF AMERICA

FOR THE
DEPARTMENT OF NATURAL RESOURCES
CANADA

David Garman
Assistant Secretary
Office of Energy Efficiency
and Renewable Energy

Ric Cameron
Assistant Deputy Minister
Energy Sector

**Department of Energy**

Washington, DC 20585

July 19, 2001

MEMORANDUM FOR THE SECRETARY**FROM:**David L. Pumphrey
Acting Director
Office of International Affairs**SUBJECT:**Implementing Arrangement between the Department of Energy-
Department of Natural Resources Canada (DOE/NRCan)**ISSUE:****ACTION:** To seek approval for signature of the Implementing
Arrangement between DOE and NRCan**BACKGROUND:**

DOE and NRCan signed a Memorandum of Understanding on (MOU) Collaboration in Energy Research and Development on March 18, 1998. This supports wide cooperation in the areas of research and development. Article 4 of the Energy R&D MOU provides for the execution of written Implementing Arrangements governing cooperation under that MOU.

This Implementing Arrangement (copy attached) will advance the status of R&D in microturbines, heat recovery systems, district energy systems and renewable energy systems and their integration into buildings, community systems, or industry. The funding will come from the Office of Energy Efficiency and Renewable Energy (EERE).

RECOMMENDATION:

The Secretary approve and authorize the Acting Director for International Affairs, or his designee, to sign the Implementing Arrangement between DOE-NRCan

CONTACT:Barry Gale, Director, Office of International Science and Technology
Cooperation x 6-6708**APPROVE****DISAPPROVE****DATE**

July 23, 2001

Attachment:

International Agreements Questionnaire

DOE/NRCan Microgeneration

CRITERION 1. The international agreement fits within the objectives of the initiating Program Office.**1. What are the technical goals of the agreement?**

Cooperation in the area of microgeneration and community energy systems.

One technical goal is to collaborate in the field installation and testing of microturbines and heat recovery systems and their integration into buildings, district energy systems, or industrial sites. Test and evaluation data and other information will be shared. Another technical goal is to collaborate in on feasibility studies and case study testing for innovative community energy systems that use microgeneration, renewables, hybrids and other innovative power park technologies. Data for prospective sites, such as AutoCad data, will be shared.

2. What are the other non-technical/policy goals of the agreement?

Expanding cooperation with Canada to avoid duplication of effort and pool resources.

The working relationship with Canada's research and development laboratories established through this MOU will assist technology transfer in the support of micro-cogeneration - specifically with microturbines. The U.S. will learn from Canada's success in catalyzing development of community energy systems through district energy feasibility studies and other technical assistance. Canada will learn from U.S. experience in deploying renewable, hybrid and microgrid technologies and associated control systems.

3. What are the specific outcomes (milestones) and anticipated products for the agreement?

- One major outcome of this program is to introduce microturbines into both the U.S. and Canadian markets with the establishment of credible information for building owners and industry. The agreement will include the execution of joint studies, projects or experiments, including the joint design, construction, and operation. The case studies and experiments will be of value to both Canadian and U.S. markets.

- Another major outcome of this program would be to expand the number of U.S. and Canadian community energy systems and to introduce innovative power park technologies such as microturbines, renewables and hybrid heat and power technologies into these systems. The feasibility studies, monitoring data from implemented systems and other data will be of value to both Canadian and U.S. markets.

CRITERION 2. This international agreement fits within DOE'S overall objectives and within U.S. national policy objectives.

4. How does this agreement support DOE's Strategic Plan? (Please be specific.)

- The implementing arrangement supports the Plan in several areas. Objective 3, Strategy 3 of Strategic Goal 1, Energy Resources, focuses on improving energy efficiency of existing U.S. building stocks and increase energy efficiency of new homes and other new buildings. The other areas of the Plan is in Goal 4, Science and Technology. Here the first goal is to "deliver the scientific understanding and technological innovations that are critical to the success of DOE's mission and the Nation's science base-energy efficiency and renewable energy is one of the unique roles that the Department plays in the science community. Within the first objective is Strategy 6 which states "increase annually the number of domestic science partnerships and the leverage of DOE research dollars through FY 2000."

5. Will technologies be transferred from the U.S. or to the U.S.? If so, please be specific.

It is anticipated that there will be some microturbine, renewable and control technology transferred to Canadian researchers and laboratories, in return for test data and system evaluation. It's also anticipated that some heat recovery and district energy technologies will be transferred to U.S. researchers and laboratories, and the Canadian's will be provided test data and system evaluation on the heat recovery equipment.

6. What are the potential commercial benefits and costs to U.S. firms?

Several U.S. firms are developing microturbines and with the development of a Canadian market, will have significant commercial benefits. Currently there are no Canadian firms developing microturbines. Both U.S. and Canadian firms develop and deploy community energy systems as well as renewable, hybrid and controls systems. None of these, to our knowledge, are deployed in combination however.

7. What are the environmental implications (potential benefits or impacts) of the activities under the agreement?

The environmental benefit is more efficient burning of natural gas, fewer emissions of traditional pollutants, and less CO₂ into the atmosphere. CHP systems with microturbines can achieve high efficiencies (70 - 90%), compared to 30 % for a stand alone microturbine. District or community energy systems can use a variety of heat sources, including waste energy from cogeneration (including microcogeneration) systems, industrial waste heat, geothermal heat, or deep lake water (for cooling). Over the past decade, district energy systems have produced dramatic environmental benefits in Scandinavian countries. A recent study of the potential for district heating and cooling in Toronto Canada showed that the entire downtown could be hooked to a district system with an internal rate of return (IRR) of more than 14 percent. The same study examined five phases of progressively lower density (as measured by the ratio of floor space to acreage) and found that nearly all of metropolitan Toronto could be hooked to a district energy system with an IRR of 10 percent. The environmental benefits of doing this

International Agreements Questionnaire

DOE/NRCan Microgeneration

included a 120 percent reduction in carbon (or more than 10% of Canada's total Kyoto CO2 reduction goal) and corresponding reductions in criteria pollutants.

CRITERION 3. This international agreement provides benefits that justify the costs to DOE and to the U.S. Government.

8. What are the benefits to be derived from the activities under this agreement?

Discuss what will be accomplished that could not be done by the U.S. alone.

Discuss what new scientific and technical information will result.

Discuss the potential political benefits?

Describe any other benefits that might flow from this agreement, such as time savings or access to unique facilities.

- Technology transfer of the microturbine and other power park technology to Canada could not be done effectively without extensive market surveys, studies and demonstration. With the help of the Canadian Government, and the involvement of private firms it will be much easier to establish a Canadian market. The data base on microturbines and other power park technologies with combined heat and power applications will significantly benefit U.S. market applications.

- This agreement with Canada will help our government to government relations and assist in future technologies crossing the border. The U.S. has unique microturbine technology and the Canadians have invested in heat recovery for CHP. A combination of the two significantly expands the market. Therefore, working together will save considerable time.

- Canada has unique expertise in successfully deploying community energy systems over the past 10 years. This program will help jump start a U.S. program that combines community energy systems with microgeneration and other innovative distributed energy resources.

9. What costs have been and will be incurred?

Discuss manpower, travel, and material resource costs where applicable.

Discuss any cost-sharing arrangements with the bilateral partner.

Describe any potential political costs.

-For the microturbine work, the only cost incurred will be those required to install, test and evaluate microturbines and heat recovery applications. The cost of the demonstrations will be incurred by each of the governments for their own country application. For the community energy work, the costs incurred will include the time spent by federal employees and/or consultants on developing the feasibility studies and monitoring and analyzing test data. There may be a few trips for conferences and manufacturer meetings. These should be minimal in cost, and approximately \$1500 per person, per visit. There are no potential political costs anticipated at this time.

10. What amounts and sources of funding have been and will be used?

Discuss whether adequate resources are available to accomplish the goals and objectives of the agreement.

The cost of the microturbine portion of the project is minimal. Each country has its own microturbine program. The cost of the community energy portion is also minimal. Canada has a strong community energy program. The most recent budget features a \$25 million technical assistance budget and a \$100 million revolving fund. The feasibility studies proposed cost \$5-10k. Similarly, the U.S. has a very strong multimillion renewable and distributed energy resources program. Therefore, the total additional cost to DOE over the life of the MOU should not exceed \$50K per year.

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF SCIENCE AND TECHNOLOGY
OF THE REPUBLIC OF KOREA
FOR A COOPERATIVE LABORATORY RELATIONSHIP**

WHEREAS, the U.S. Department of Energy of the United States of America (USDOE) and the Ministry of Science and Technology of the Republic of Korea (MOST), hereinafter referred to as the Parties, have been cooperating for some time in several areas designed to foster the peaceful and nonexplosive uses of atomic energy;

WHEREAS, this program of peaceful cooperation has been intensifying with the expansion of civil nuclear power activities in the Republic of Korea;

WHEREAS, the Parties perceive that they will benefit from an expansion of their technical cooperation and collaboration in a number of fields related to the civil uses of atomic energy;

WHEREAS, the Parties also share the view that their existing and prospective new cooperation in the nuclear field will be mutually beneficial if it is subjected to regular monitoring and guidance by the Joint Standing Committee on Nuclear and Other Energy Technologies (JSCNOET), which meets annually, alternately in the United States and in the Republic of Korea, to review and plan cooperative activities; and

WHEREAS, the Parties attach great importance to achieving the goals of the Agreement for Cooperation between the Government of the United States of America and the Government of the Republic of Korea Concerning Civil Uses of Atomic Energy, signed at Washington, on November 24, 1972, as amended, hereinafter referred to as the Peaceful Uses Agreement;

THE PARTIES HEREBY AGREE AS FOLLOWS:

**ARTICLE I
BASIC PRINCIPLES**

Each Party agrees that:

- A. All cooperative activities carried out under this Memorandum of Understanding (MOU) shall involve peaceful uses of nuclear energy, exclusively. All such activities shall be subject to the Peaceful Uses Agreement.
- B. The institutions identified in Annex III, hereinafter referred to as participating institutions, may carry

out cooperative activities under this MOU, subject to the mutual agreement of the Parties in writing and subject to all of the terms and conditions of this MOU.

- C. Each Party and each participating institution may propose areas of cooperation to be conducted under this MOU. Such areas of cooperation normally shall be of programmatic interest to the Parties and to the participating institutions that are involved in cooperative activities.
- D. Unless otherwise agreed to in writing by the Parties, all costs shall be borne by the Party that incurs them.
- E. Cooperation under this MOU shall be conducted according to the international obligations and applicable laws and regulations of the Parties, including laws relating to the availability of appropriated funds.
- F. Nothing in this MOU shall alter or affect any existing agreements between the Parties or the participating institutions in fields related to the civil uses of atomic energy.

ARTICLE II IMPLEMENTATION

- A. The technical areas of collaboration under this MOU may include the following:
 - 1. Nuclear Power/Research Reactors and Associated Fuel Technology;
 - 2. Nuclear Waste Management;
 - 3. Nuclear Safety and Environment;
 - 4. Applications of Radiation and Radioisotopes;
 - 5. Nuclear Safeguards Technology;
 - 6. Basic Sciences;
 - 7. Education;
 - 8. Health Physics;
 - 9. Environmental Research related to Nuclear Technology;
and
 - 10. Such other fields as may be mutually agreed to by the Parties in writing.

- B. The participating institutions may make recommendations to the Parties regarding the implementation of staff assignments, exchanges, and cooperative activities. The implementation of such activities shall be subject to separate exchanges of letters between the participating institutions involved in such activities. Such written arrangements shall be subject to concurrence by the Parties.
- C. Whenever a program of cooperation is established, each Party shall designate a Lead Coordinator. Each participating institution involved in the program shall designate its technical/scientific representative to be responsible for carrying out the program. The designation of the technical/scientific representative(s) shall be subject to concurrence by the Parties.

ARTICLE III FORMS OF COOPERATION

The forms of cooperation carried out under this MOU may include:

- A. Exchange of scientists, engineers and other specialists for agreed periods for participation in agreed research, development, analysis, design and experimental activities conducted in research centers, laboratories, engineering offices and other facilities and enterprises of each Party, each Party's contractors, or each participating institution. Such exchanges of personnel shall be conducted in accordance with Article IV of this MOU.
- B. Exchange of samples, materials, instruments and components for testing;
- C. Exchange, on a current basis, of scientific and technical information, and results and methods of research and development in accordance with Article V of this MOU;
- D. Organization of, and participation in, seminars and other meetings on specific mutually agreed topics in the fields listed in Article II of this MOU;
- E. Joint projects in which the Parties agree to share the work and/or costs. Each such joint project shall be the subject of a separate written agreement attached as an Annex hereto; and
- F. Such other forms of cooperative activities as may be agreed by the Parties in writing.

**ARTICLE IV
ASSIGNMENT AND EXCHANGE OF PERSONNEL**

Each Party agrees to ensure that, whenever an assignment or exchange of staff is contemplated under this MOU:

- A. Each participating institution will ensure that qualified staff are selected for exchanges or assignments to the host institution;
- B. The participating institutions will prepare assignment agreements as necessary to carry out exchanges or work assignments under this MOU;
- C. Each participating institution will be responsible for the salaries, insurance and allowances to be paid to its staff;
- D. Each participating institution will pay for the travel and living expenses of its staff while on assignment or exchanges unless otherwise agreed to by the Parties;
- E. The host participating institution will identify adequate accommodations for staff of another participating institution (and their families) on a mutually agreeable, reciprocal basis;
- F. The host participating institution will provide all necessary assistance to the staff of another participating institution (and their families) as regards administrative formalities, such as visa applications;
- G. Assigned staff will conform to the general and special rules of work and safety regulations in force at the host participating institution, or as agreed in a separate arrangement;
- H. A participating institution may propose a staff assignment or exchange by notifying the host institution of the name of the person(s) proposed for such assignment or exchange. Each participating institution will provide any information concerning any of such person(s) which is required by the receiving institution; and
- I. The host participating institution will grant assigned staff access to unclassified information to the extent necessary to allow the staff to perform assigned duties.

**ARTICLE V
INFORMATION AND INTELLECTUAL PROPERTY**

- A. The Parties participating institutions may exchange information necessary to carry out this MOU. All information arising under this MOU will be promptly exchanged between the participating institutions and the Parties. The Parties share the objective of providing adequate and effective protection for intellectual property created or furnished in support of this MOU.
- B. Provisions for the protection and allocation of intellectual property and the treatment of business-confidential information are set forth in Annex I to this MOU, which forms an integral part of this MOU and applies to all activities carried out under this MOU.
- C. Reciprocal security obligations related to the cooperative activities under this MOU shall be observed in accordance with the provisions of Annex II, which forms an integral part of this MOU.

**ARTICLE VI
DURATION AND TERMINATION**

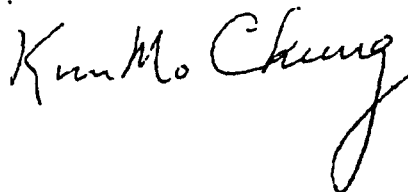
- A. This MOU shall enter into force upon signature and shall remain in force for a period of five years. This MOU may be amended or extended by written agreement of the Parties. Either Party may terminate this MOU at any time after providing six months written notice to the other Party.
- B. The Parties may agree to continue joint activities which are not completed at time of termination or expiration of this MOU until such activities are completed under the terms and conditions of this MOU.

Done at Washington in duplicate, this 14th day
of June 1996.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:



FOR THE MINISTRY OF
SCIENCE AND TECHNOLOGY OF
THE REPUBLIC OF KOREA:



ANNEX I - INTELLECTUAL PROPERTY

I. GENERAL

A. For purposes of this Memorandum of Understanding (MOU), "intellectual property" is understood to have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.

B. The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this MOU and relevant implementing arrangements thereunder.

II. COPYRIGHTS

Disposition of rights to copyright protected works created in the course of the cooperative activities under this MOU shall be determined in the relevant implementing arrangements. The parties to the cooperative activities concerned shall take the appropriate steps to secure copyright to works created in the course of cooperative activities under this MOU in accordance with the national laws and regulations of the respective countries.

III. INVENTIONS

A. For the purposes of this Annex, "invention" means any invention made in the course of a program of cooperative activity under this MOU or implementing arrangements thereunder which is or may be patentable or otherwise protectable under the laws of the United States of America, the Republic of Korea, or any third country.

B. Between a Party and its nationals, the ownership of rights and interests in inventions shall be determined in accordance with that Party's national laws, regulations and practices.

C. As to an invention made under this MOU or its implementing arrangements, the parties to the cooperative activity concerned shall take the appropriate steps to secure rights to implement the following:

1. If the invention is made as a result of a program of cooperative activity that involves only the transfer or exchange of information between the parties, such as by joint meetings, seminars, or the exchange of technical reports or papers, unless otherwise provided in an applicable implementing arrangement:

- a. The party whose personnel make the invention ("the Inventing Party") has the right to obtain all rights and interests in the invention in all countries;

b. In any country where the Inventing Party decides not to obtain such rights and interests, the other party has the right to do so.

2. If the invention is made by personnel of one party ("the Assigning Party") while assigned to the other party ("the Receiving Party") in the course of a program of cooperative activity that involves only the visit or exchange of scientific and technical personnel, and:

a. in the case where the Receiving Party is expected to make a major and substantial contribution to the cooperative activity:

i. the Receiving Party has the right to obtain all rights and interests in the invention in all countries; and

ii. in any country where the Receiving Party decides not to obtain such rights and interests, the Assigning Party has the right to do so.

b. in the case where the provision in subparagraph (a) above is not satisfied:

i. the Receiving Party has the right to obtain all rights and interests in the invention in its own country and in third countries,

ii. the Assigning Party has the right to obtain all rights and interests in the invention in its own country; and

iii. in any country where one party decides not to obtain such rights and interests, the other party has the right to do so.

D. Specific arrangements involving other forms of cooperative activities such as joint research projects with an agreed scope of work, shall provide for the mutually agreed upon disposition of rights to an invention made as a result of such activities on an equitable basis.

E. Notwithstanding the foregoing, if an invention is of a type for which exclusive rights are available under the laws of one Party but not of the other Party, the Party whose laws provide for exclusive rights shall be entitled to all rights to such invention in its own territory and in third countries. Persons named as inventors of property shall nonetheless be entitled to a share of royalties earned by either institution from the licensing of the Property. The parties to the cooperative activities may agree, however, to a different allocation of rights to such invention.

F. The Inventing Party shall disclose the invention promptly to the other party together with any documentation and information necessary to enable the other party to establish any right to which it may be entitled. The inventing party may ask the other party in writing to delay publication or public disclosure of such documentation or information for the purpose of protecting its rights related to the invention. Unless otherwise specifically agreed in writing, such restriction shall not exceed a period of six months from the date of such communication. Communication shall be made through the competent government agencies or as otherwise designated in the relevant implementing arrangements.

IV. BUSINESS CONFIDENTIAL INFORMATION

A. For the purpose of this Annex, "business-confidential information" means any know-how, technical data, or technical, commercial, or financial information that meets all of the following conditions:

1. it is of a type customarily and intentionally held in confidence for commercial reasons;
2. it is not generally known or publicly available from their sources;
3. it has not been previously made available by the owner to others without an obligation concerning its confidentiality; and
4. it is not already in the possession of the recipient without an obligation concerning confidentiality.

B. Business-confidential information should be furnished or, when created in the course of cooperative activities under this MOU, transferred by mutual written agreement of the parties to the cooperative activity concerned.

C. All business-confidential information shall be given full protection in accordance with the laws and regulations of the respective countries. Any information to be protected as "business-confidential information" shall be appropriately identified, before it is furnished in the course of cooperative activities or immediately upon being created, by the party furnishing such information or asserting that it is to be protected. Unidentified information will be assumed not to be information to be protected, except that a party to the cooperative activity may notify the other party in writing, within a reasonable period of time after furnishing or transferring such information, that such information should be protected as "business-confidential information".

V. OTHER FORMS OF INTELLECTUAL PROPERTY

"Other forms of intellectual property" means any intellectual property created under this MOU other than inventions or works of authorship and includes, for example, mask works. Rights to other forms of intellectual property shall be determined in the same manner as for inventions, i.e., Article III, paragraph B-D of this Annex. If intellectual property is of a type for which protection is available under the laws of one Party but not of the other Party, the Party whose laws provide for such protection shall be entitled to all rights in such intellectual property in its own territory and in third countries. Persons named as inventors of property shall nonetheless be entitled to a share of royalties earned by either institution from the licensing of the property. The parties to the cooperative activities may, however, agree to a different allocation of rights to such intellectual property.

VI. MISCELLANEOUS

A. Each party to the cooperative activity shall take all necessary and appropriate steps to provide for the cooperation of its authors, inventors, and discoverers which is required to carry out the provisions of this Annex.

B. Each party to the cooperative activity shall assume the responsibility to pay nationals of its country or its personnel such awards or compensation as may be in accordance with the laws and regulations of its country. This Annex does not create any entitlement or prejudice any right or interest of the authors or inventors or discoverers to an award or compensation for their works, inventions or discoveries.

C. Disputes or the intellectual property arising between the parties to a cooperative activity under this MOU shall be resolved through discussions between the parties directly concerned. If disputes cannot be resolved by those parties, they shall be settled through consultations with the Parties.

VII. EFFECT OF TERMINATION OR EXPIRATION

Termination or expiration of this MOU shall not affect rights or obligations under this Annex.

VIII. APPLICABILITY

This Annex shall be applied to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the parties to the cooperative activities.

ANNEX II - SECURITY OBLIGATIONS

I. PROTECTION OF INFORMATION

Both Parties agree that no information or equipment requiring protection in the interests of national defense or foreign relations of either Party and classified in accordance with the applicable national laws and regulations shall be provided under this Memorandum of Understanding (MOU). In the event that information or equipment which is known or believed to require such protection is identified in the course of cooperative activities undertaken pursuant to this MOU, it shall be brought immediately to the attention of the appropriate officials, and the Parties shall consult concerning the need for and level of appropriate protection to be accorded such information or equipment.

II. TECHNOLOGY TRANSFER

The transfer of export-controlled information or equipment between the two countries shall be in accordance with relevant laws and regulations of each Party to prevent the unauthorized transfer or retransfer of such information or equipment provided or produced under this MOU. If either Party deems necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the contracts or implementing arrangements.

ANNEX III - PARTICIPATING INSTITUTIONS

One or more institutions from one Party may carry out cooperative activities with one or more institutions from the other Party as specified under Article IB of this Memorandum Of Understanding. Additional institutions may be added as amendment to this MOU.

I. From the United States:

The Argonne National Laboratory (ANL)
The Brookhaven National Laboratory (BNL)
Oak Ridge National Laboratory (ORNL)
Idaho National Engineering Laboratory (INEL)
Pacific Northwest Laboratory (PNL)

II. From the Republic of Korea:

Korea Atomic Energy Research Institute (KAERI)
Korea Institute of Nuclear Safety (KINS)
Korea Basic Science Institute (KBSI)

**Department of Energy**

Washington, DC 20585
November 30, 2001

MEMORANDUM FOR THE SECRETARY

THROUGH: KYLE E. MCSLARROW
CHIEF OF STAFF

FROM: VICKY A. BAILEY *David Humphrey*
ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: ACTION: Extension and Amendment of the Memorandum of Understanding (MOU) between the Department of Energy (DOE) and the Ministry of Science and Technology (MOST) of the Republic of Korea for a Cooperative Laboratory Relationship

ISSUE: To seek approval for signature of the extension and amendment (Attachment A) of the Memorandum of Understanding between DOE and MOST (Attachment B) for a five-year period.

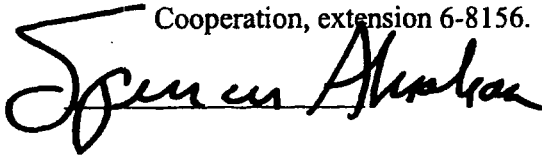
BACKGROUND: The MOU, begun in 1996 and brought under the auspices of the U.S.-Republic of Korea (ROK) Joint Standing Committee for Nuclear Energy Cooperation (JSCNEC), has played a key role in the development and maintenance of the strategic relationship between the United States and the ROK. The MOU supports a broad range of cooperative efforts between DOE laboratories and Korean nuclear research institutions. The work has helped advance Korean nuclear research capabilities and maintained the capabilities of U.S. laboratories. Joint work that has benefitted from the collaboration includes the development and transfer of remote-handling capabilities; seismic analysis; development of alternative fuel cycles that do not require reprocessing of spent fuel; and a wide range of other activities. The amendment includes a revision to the intellectual property provisions of the MOU, in order to make the terms more consistent with current practices. The extension also provides that the MOU will be automatically extended every five years unless one of the parties gives notice of its intent to terminate six months in advance.



RECOMMENDATION: The Secretary approve and authorize the Assistant Secretary of Policy and International Affairs (or her designee) to sign the extension of the Memorandum of Understanding between DOE and MOST.

CONTACT: Keena Hillary, Office of International Science and Technology Cooperation, extension 6-8156.

APPROVE:

A handwritten signature in black ink, appearing to read "Spencer Alvarado", written over a horizontal line.

DISAPPROVE: _____

DATE: December 7, 2001

Attachments:

MEMORANUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE ATOMIC ENERGY AUTHORITY OF
THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
FOR EXCHANGE OF NUCLEAR REACTOR TECHNOLOGY INFORMATION

The Department of Energy of the United States of America (DOE) and the Atomic Energy Authority of the United Kingdom of Great Britain and Northern Ireland (UKAEA) (hereinafter the "Participants");

Acknowledging that the DOE and the UKAEA each have responsibility for the decommissioning of their respective nuclear fuel handling facilities, radioactive waste disposal, facility decommissioning, site clearance, environmental remediation, and long-term environmental management of nuclear reactors and associated facilities; and

Noting the long history of mutually beneficial cooperation between their two countries in the field of energy, including nuclear energy;

The Participants have reached the following understanding:

Section 1
Objective

The Participants intend to exchange information in the areas of nuclear facility decommissioning, waste management, and site remediation, on the basis of mutual benefit, equality and reciprocity.

Section 2
Scope

- 2.1 Collaboration under this Memorandum of Understanding (MOU) may include, but is not limited to, the exchange of information which the Participants have a right to disclose, either in their possession or available to them, concerning the following subjects:

2.1.1 Nuclear Facility Decommissioning

Comparison of decommissioning technologies, practices and strategies applicable to nuclear reactor facilities and nuclear fuel facilities, with a view to adopting best practices for particular decommissioning activities. Such comparisons may include examination of safety and environmental issues as appropriate, including response to possible emergency situations.

2.1.2 Spent Fuel

Strategy and solutions for spent fuel handling which may consider, among other options, interim storage, final disposal, and additional processing safety justifications.

2.1.3 Waste Management and Site Remediation

All activities, including technology development, physical and institutional controls, monitoring and surveillance, information management, and other mechanisms required to protect human health and the environment. It is the intent of the Participants to identify strategies to reduce scientific and technical uncertainty, improve the reliability of engineered solutions, and reduce overall costs associated with residual hazards for nuclear sites.

2.1.4 Other subjects as the Participants may add by written arrangement.

- 2.2 Information transmitted by one Participant to the other Participant under this MOU will be accurate to the best knowledge and belief of the transmitting Participant, but the transmitting Participant does not warrant the suitability of the information for any particular use or application by the receiving Participant or by any third party.
- 2.3 In the event a Participant proposes to transfer business-confidential information to the other Participant, the Participants will consult with each other and make appropriate written arrangements for the protection of such business-confidential information in accordance with applicable laws, regulations, and administrative practice.

Section 3 Forms of Cooperation

Collaboration under this MOU may include, but is not limited to, the following forms:

- 3.1 Exchange of general information on nuclear reactor technology;
- 3.2 Exchange of scientific and technical information on specific topics as mutually agreed;

- 3.3 Short visits by one Participant's specialists to the facilities of the other Participant;
- 3.4 Exchange or assignment of staff, subject to a written arrangement in each case between the Participants;
- 3.5 Other specific forms of cooperation as the Participants may add by written arrangement.

Section 4 **Management**

- 4.1 Each Participant will appoint a Coordinator to liaise with his/her counterpart in order to plan, implement and evaluate the cooperation under this MOU. The Coordinators may be assisted by experts, as they deem appropriate.
- 4.2 The Coordinators may meet at regular intervals, as agreed, alternately in the United Kingdom and in the United States. Alternatively, meetings may be held by videoconference.
- 4.3 The Coordinators may form Working Groups for *ad hoc* periods, to undertake assigned tasks on special topics within the scope of this MOU. Each Coordinator will designate a topic area specialist for each Working Group formed. The specialists will be responsible for keeping the Coordinators informed of the activities of their Working Group.
- 4.4 At such intervals specified by the Coordinators, the specialists responsible for each Working Group will provide a written progress statement to the Coordinators.

Section 5 **Funding**

- 5.1 Collaboration under this MOU is subject to the availability of appropriated funds and other resources.
- 5.2 Each Participant is responsible for the costs it incurs to participate in the collaboration under this MOU.

Section 6 **General Provisions**

- 6.1 Cooperation under this MOU may commence upon signature and continue for 5 years. This MOU may be revised or extended by written arrangement of the Participants.

6.2 This MOU may be terminated at any time by either Participant upon 3 months' written notice to the other Participant.

Signed in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE ATOMIC ENERGY AUTHORITY
OF THE UNITED KINGDOM OF GREAT
BRITAIN AND NORTHERN IRELAND:

Date:

Date:

Place:

Place:

EVALUATION QUESTIONNAIRE FOR INTERNATIONAL AGREEMENTS

1. The international agreement fits within the objectives of the initiating Program Office.

What are the goals of the agreement?

The U.S. Department of Energy (DOE) has identified the Fast Flux Test Facility (FFTF) as an excess facility requiring permanent disposition. This disposition will entail stabilization (deactivation) and subsequent decommissioning and decontamination (D&D). The overall goal of this agreement is to identify methodologies, protocols, and/or technology applications that, if employed, would decrease the total cost to the Government of FFTF disposition. Deactivation of FFTF was initiated on December 19, 2001. Based on current planning assumptions, FFTF deactivation and subsequent D&D to a "green field" state could cost as much as \$2.2 billion (U.S. current value). FFTF is a liquid-metal (sodium) reactor. The United Kingdom has considerable expertise in the disposition of this type of reactor.

- *Technical and Policy Goals.* The design and status of U.S. and United Kingdom liquid-metal (sodium) reactor plants would be collectively reviewed to ascertain specific opportunities for collaborative detailed technical investigation. Anticipated areas of detailed investigation are:
 - Design/procurement of sodium pumps.
 - In situ passivation methodology for liquid metal sodium.
 - In situ reactivation methodology for liquid metal sodium.
 - Draining methodology for large liquid metal sodium systems.
 - Methodology for removal of liquid metal sodium from fuel assemblies.

The policy goal would be the continued use of cooperative agreements to enhance good stewardship and international cooperation in the management of our nuclear infrastructure.

- *Milestones, Products, and Outcomes.* The initial review would be accomplished within six months of the signing of the agreement. The follow-on, detailed investigation would be an on-going effort consistent with the progress of FFTF deactivation. Information would be shared and applied as needed. This collaborative effort would result in technical reports to DOE and the United Kingdom Atomic Energy Authority (UKAEA), and an exchange of information and lessons learned that could be applied to the deactivation of FFTF with the expectation that proven methodologies resulting from previous and ongoing deactivation efforts would provide a greater opportunity for cost reduction.
- *Non-Technical Objectives.* A non-technical objective of this agreement would be to enhance the existing and historically beneficial technology-transfer relationship with the United Kingdom.

**EVALUATION QUESTIONNAIRE
FOR INTERNATIONAL AGREEMENTS**

- 2. This international agreement fits within DOE's overall objectives and within U.S. national policy objectives.**

How does this agreement support DOE's Strategic Plan?

The use of shared information, lessons learned, and proven methodologies to more efficiently and effectively stabilize (deactivate) and decommission and decontaminate FFTF directly supports the DOE Strategic Plan energy resource performance goal of protecting our Nation's nuclear research and development infrastructure. This performance goal requires the efficient and effective management of vital resources and capabilities to ensure both the continued availability of major research/critical facilities for long-term missions, as well as the disposition of unneeded facilities in a safe and cost-effective manner.

What are the implications for U.S. economic competitiveness?

This agreement is seen as having little or no potential for adversely impacting U.S. economic competitiveness. If anything, the international cooperation foreseen under this agreement would constitute an additional source of technology information available to the United States. Our participation at the very least is another indication of U.S. willingness to work with the international community in tackling environmental stewardship and clean-up issues, which could help open future opportunities for enhanced U.S. economic competitiveness, if only in a limited way.

- *Will technologies be transferred?* The only technology transfer that may occur is in the area of chemical reaction of liquid metal sodium. The transfer would be from the United Kingdom to the United States.
- *Is there potential for commercial loss to U.S. firms?* Existing expertise in U.S. firms and national laboratories has been investigated, and the activities under this agreement would not be undertaken in lieu of further cooperation with U.S. entities, public or private. The disposition of large sodium systems in liquid-metal reactors primarily involves the specialized application of existing technologies. We have been in contact with the relatively small number of firms having experience with such application; however, these firms have not undertaken a number of the key disposition steps of considerable concern to us. Therefore, we do not foresee any potential for adverse commercial impact on U.S. firms.
- *Will exports of U.S. goods and services be enhanced?* We do not envision a direct impact on the export of U.S. goods and services. However, if the success of this cooperative effort were to lead to a request by a firm or agency in the United Kingdom or some other country for assistance or cooperation in a project related to the disposition of facilities containing sodium, then enhanced U.S. exports would be a possibility.

**EVALUATION QUESTIONNAIRE
FOR INTERNATIONAL AGREEMENTS**

3. This international agreement provides benefits that justify the cost to DOE and to the U.S. Government

What are the identifiable benefits of the agreement (to the United States? To DOE? To the bilateral partner)?

The costs for FFTF deactivation and D&D are currently projected to be approximately \$2.2 billion (U.S. current value). Even minor lessons learned from the deactivation of the British liquid metal reactors could result in saving DOE, and consequently the U.S. taxpayer, thousands to millions of dollars. The sharing of information under this agreement would help both partners, the United States, and the United Kingdom to employ the best deactivation and D&D practices for liquid metal reactors in their respective Government programs.

- *What economic gains or savings will result from the activities?* These cannot be definitively estimated at this point. However, the fact that the United Kingdom decommissioning efforts to date have already employed methods to accomplish tasks similar to those we face establishes the clear potential for savings by using or building on their proven methods in order to avoid the costs of developing new methods on our own, as currently planned. For example, it is our understanding that the United Kingdom was able to react all of the sodium in a 12-inch section of 1-inch diameter piping using a wet nitrogen vapor process. We would like to perform a similar task with our plant, but to do so, we would first need to undertake considerable development at additional cost. With the benefit of the United Kingdom experience, we might be able to avoid some or all of that cost.
- *What will be accomplished that could not be accomplished by the United States alone?* While the United States could possibly acquire the technology information of interest on its own, the details of its use and applicability and the cooperative examination of its integration with other technologies in the deactivation of liquid-metal reactors could only be accomplished under the auspices of a formal agreement.
- *What new scientific and technical information will result?* Activities under this agreement would not be directed toward the development of new technologies; however, we could learn how to more effectively employ existing technologies.
- *Other potential benefits.* Applying proven methodologies could also result in more expeditious completion of the various phases and steps of deactivation and D&D, which could free up DOE resources for use in other high priority missions sooner. Success in this cooperative effort with the United Kingdom could open the door to future agreements beneficial to the United States. Further, our participation in international decommissioning technology activities might enhance U.S. influence in the application of those technologies.

**EVALUATION QUESTIONNAIRE
FOR INTERNATIONAL AGREEMENTS**

What costs have been and will be incurred?

No costs have been incurred at this time. We would anticipate no material costs. Manpower and travel/administrative costs and amounts and sources of funding would be as follows.

- *Manpower Costs.* Manpower costs over the first six months would be less than two man-months. Manpower costs, after identifying areas for investigation, would be 1 to 3 man-months per year.
- *Travel/Administrative Costs.* Travel costs during the first six months would be \$5,000 to \$10,000. After the first six months, the yearly cost of travel would be between \$5,000 and \$20,000 for two years. It is envisioned that most of the information transfer would take place by document exchange and video conferencing. Document preparation, reproduction, and mailing are taken into account as well.
- *Amounts and Sources of Funding.* Funding sufficient to cover the manpower and travel/administrative costs would be provided by the cognizant DOE program office, currently the Office of Nuclear Energy, Science, and Technology.

Are adequate resources available to accomplish the goals and objectives of the agreement?

Yes.

How are costs shared with the bilateral partner?

Each participant will fund its own costs incurred by the activities under this agreement.

What are the potential political or other non-monetary costs?

No political or non-monetary costs are anticipated.



Department of Energy

Washington, DC 20585

October 4, 2002

ES2002-016978

MEMORANDUM FOR THE SECRETARY

THROUGH: KYLE MCCLARROW
CHIEF OF STAFF

FROM: VICKY A. BAILEY
ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: ACTION: Department of Energy and the United Kingdom Atomic Energy Authority (UKAEA) Memorandum of Understanding (MOU)

ISSUE: To seek approval for signature of the MOU (Tab A)

BACKGROUND: After an interval of more than a dozen years, this MOU re-establishes cooperation between DOE and UKAEA on nuclear energy-related issues, specifically information exchange in the area of nuclear facility decommissioning, waste management, and site remediation.

The UKAEA possesses considerable expertise in the deactivation, decommissioning and decontamination of liquid-metal (sodium) reactors. Cooperation under this MOU will enable DOE to identify British-employed methodologies, protocols and/or technology applications whose use could decrease the estimated \$2.2 billion cost to the U.S. Government to deactivate and permanently dispose of the Fast Flux Test Facility, a liquid-metal (sodium) reactor.

Additional information concerning this MOU is contained in the "International Agreements Questionnaire" at Tab B.

RECOMMENDATION: The Secretary approve and authorize the Assistant Secretary of Policy and International Affairs, or her designee, to sign the Memorandum of Understanding.

CONTACT: Barry Gale, Director, Office of International S&T Cooperation, 6-6770

APPROVE: 

DISAPPROVE: _____

DATE: 12/1/03

ATTACHMENTS:

- A. Proposed Memorandum of Understanding
- B. International Agreements Questionnaire



Printed with soy ink on recycled paper

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE MINISTRY OF COAL OF THE REPUBLIC OF INDIA
AND
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
CONCERNING
ENERGY CONSULTATIONS AND INFORMATION EXCHANGE

The Ministry of Coal of the Republic of India and the Department of Energy of the United States of America (hereinafter the "Participants"), desirous of conducting bilateral, as well as multilateral, energy consultations and information exchange, have reached the following understandings:

Article 1

Within the framework of common interest and mutual benefit of both Participants' countries, the Participants have agreed to establish a sub-ministerial working group on energy (the "Group") to conduct energy consultations for the purpose of enhancing the understanding of energy issues and promoting the exchange of information on energy policies, programs and technologies by consultations, with special emphasis on coal production and utilization in the power generating industry.

Article 2

The objective of the Group includes consultations:

- A) To discuss current and prospective energy developments in both countries as well as the potential impact of regional energy issues;
- B) To facilitate an exchange of information and assessments on energy demand and supply forecasts for the Participants' two countries;
- C) To exchange views on energy and related environmental policies and to discuss programs of both Participants' countries relating to the exploration, development, management, and environmental concern of major energy resources, such as coal, and to the efficient and environmentally responsible transport and use of energy.

Article 3

The areas of consultation and information exchange in the field of fossil energy and electric power generation under this Memorandum of Understanding may include:

- A) Coal science with emphasis on production, combustion, coal structure, and related chemical and thermophysical properties;
- B) Process modeling for advanced fossil-related technology;
- C) Impact on boilers by the use of variable ash-content coal, including high ash-content;
- D) Coal cleaning, grinding, and preparation for utilization;
- E) Studies of fuel combustion products, including cleanup and environmental effects;
- F) Other topics as may be mutually agreed by the Participants.

Article 4

Each Participant shall designate a coordinator for an overall coordination of activities stipulated under this Memorandum of Understanding and its Annexes. The coordinators will, by correspondence, consult with each other and define the cooperative activities and other related matters. When necessary, meetings may be called by mutual agreement to consider matters related to the implementation of this Memorandum of Understanding.

Article 5

It is understood that the Participants' participation in the activities contemplated by this Memorandum of Understanding is subject to the availability of appropriated funds.

Article 6

Consultation under the Memorandum of Understanding will cease five (5) years after the date of signature, unless the Participants decide in writing that continued consultations would be beneficial.

Signed at _____, in duplicate, in the English language, this _____ day of 2003.

FOR THE MINISTRY OF COAL
OF THE REPUBLIC OF INDIA:

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

Department of Energy International Agreement Evaluation Questionnaire

CRITERION 1. The international agreement fits within the objectives of the initiating Program Office.

1. What are the technical goals of the agreement?

Activities under this Memorandum of Agreement (MOU) will focus on the establishment of a program for useful technical information exchange of clean coal and power systems technologies and the use of clean and efficient coal technologies as components of environmental protection and production efficiency improvement. The U.S. and India will cooperate in the development of a detailed action plan for the evaluation of new technologies and equipment to improve quality of steam coal, combustion efficiency in thermal power plants, and for working toward a common understanding of the strategic value of the present and future use of fossil fuels in national power and fuels production in India and the U.S.

2. What are the non-technical/policy goals of the agreement?

India is presently transitioning from a relatively-planned- to a market-economy. Efforts are being made in privatizing the coal and power industries. It is inevitable that the change in the status quo will have, sometimes, undesirable social consequences. Solutions must be sought for the serious economic and environmental problems confronting the Indian coal and power industries by establishing cooperation with the corresponding industries in the U.S. on a mutually beneficial basis. Ensuring a market for coal through its clean and efficient utilization will minimize social disruption and enhance economic stability.

This IA has been drawn up in order to pursue work initiated under the *"Joint Statement of Intent to Cooperate in the Field of Fossil Energy Between the United States Department of Energy and the Indian Ministry of Coal."*

3. What are the specific outcomes (milestones) and anticipated products for the agreement?

Specific milestones will be set once the MOU has been signed. Some anticipated outcomes include:

- Consideration of a center/clearinghouse for coal/fossil fuel information exchange.
- Study tours to U.S. and Indian project sites as appropriate.
- Exchange program for environmental devices.
- Programs demonstrating the economic and environmental benefits of cleaner coal.
- Joint research programs for better utilization of fossil fuels.

CRITERION 2. This international agreement fits within DOE's overall objectives and within U.S. national policy objectives.

4. How does this agreement support DOE's Strategic Plan? (Please be specific.)

This MOU supports many elements of DOE's Strategic Energy Plan. Two of the major "policy principles" under the ENERGY RESOURCES business line are: (i) *support for energy science and technology development*, and (ii) *facilitation of international cooperation*. Objective ER5 states that "The Department actively supports international cooperation in technology development." Strategy 3 of this Objective is: *for US companies in ... Clean Coal Technology, remove barriers to markets in ... India ...* The SCIENCE AND TECHNOLOGY business line identifies "International Cooperation" as one major area of focus.

5. Will technologies be transferred from the U.S. or to the U.S.? If so, please be specific.

India has a great deal of technical opportunities to offer, at a cost much lower than U.S., at her research facilities, institutes, and laboratories. Their areas of research have focused on use of high-ash content coal, environmental restoration, etc. Exchange of information under the proposed agreement would ultimately benefit American industry, as well as U.S. emerging technologies, by providing appropriate markets for products and services associated with clean coal technologies.

6. What are the potential commercial benefits and costs to U.S. firms?

Exchange of information under the proposed agreement would ultimately benefit American industry as well as U.S. emerging technologies by providing appropriate markets. If a relatively inexpensive way of cleaning coal is developed, it would have potential markets around the world.

Initially, costs would be limited to some international travel and minor incidentals. Joint projects that would require substantial funding obligation would be the subject of a separate agreement.

7. What are the environmental implications (potential benefits or impacts) of the activities under the agreement?

Benefits of the proposed program include an exchange program for environmental information, recovery of land used to store waste from coal mining, recovery of abandoned mines, and development and use of cleaner coal

CRITERION 3. This international agreement provides benefits that justify the costs to DOE and to the U.S. Government.

8. What are the benefits to be derived from the activities under this agreement?
- Discuss what will be accomplished that could not be done by the U.S. alone.

Benefits would include obtaining access to Indian research results for possible application to FE programmatic interests; obtaining access from experiential data from the implementation of these new technologies in Indian applications; and enhancement of national security through economic liberalization of India.

- Discuss what new scientific and technical information will result.

It is not possible to predict scientific and technical results at this time. However, mutual interests exist in a number of areas that have the potential for showing significant progress. These include development of less expensive coal cleaning technologies, use of high ash content coal, mine reclamation, among others.

- Discuss the potential political benefits.

Economic development of India will enhance political stability and strengthen its democratic institutions. A stable and prosperous democratic India is enormously beneficial to U.S.

Work performed under this IA will help lay the foundation for those development in an environment-friendly way.

9. What costs have been and will be incurred?

- Discuss manpower, travel, and material resource costs where applicable.

Some costs have been incurred to date for some international travel. No additional costs are anticipated other than occasional travel. It is anticipated that cooperation under this MOU will require about 10% of one FTE.

- Discuss any cost-sharing arrangements with the bilateral partner.

Initially, costs would be limited to some international travel. Joint projects that would require funding obligation would be the subject of a separate Agreement.

- Describe any potential political costs.

No potential political costs for the agreement are known.

10. What amounts and sources of funding have been and will be used?

- Discuss whether adequate resources are available to accomplish the goals and objectives of the agreement.

As noted above, the only funding required at this stage will be for some international travel. Any expansion of activities to provide jointly funded projects would be the subject of a separate Agreement. The modest amount required to support initial activities are available.



Department of Energy

Washington, DC 20585

April 04, 2003

MEMORANDUM FOR THE SECRETARY

THROUGH: JOSEPH P. McMONIGLE
CHIEF OF STAFF

FROM: VICKY A. BAILEY *Vicky A. Bailey*
ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: **ACTION:** Memorandum of Understanding between the Ministry of Coal of the Republic of India and the Department of Energy of the United States of America concerning energy consultations and information exchange (Tab A).

ISSUE: To seek the Secretary's approval for Assistant Secretary Vicky Bailey or her delegate to sign the Memorandum of Understanding.

DISCUSSION: Under this legally non-binding MOU between DOE and the Indian Ministry of Coal, a sub-ministerial working group on energy will be established to conduct energy consultations, aimed at enhancing the understanding of energy policy issues, programs and technologies. Specific areas of consultation could include: (1) coal science focusing on production, combustion, and coal structure; (2) process modeling for advanced fossil-related technology; (3) coal cleaning and preparation for utilization; and (4) studies of fuel combustion products, including cleanup and environmental effects. The International Agreements Evaluation Questionnaire (Tab B) provides additional detail.

POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: That you approve signature of the MOU by Assistant Secretary Vicky Bailey or her delegate.

CONTACT: Kathleen Rees (PI-41), x 6-5902

Spencer Abraham
APPROVED: x DISAPPROVED: DATE: 6/2/03

Attachments:

Tab A: Memorandum of Understanding

Tab B: International Agreements Evaluation Questionnaire



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Annex VI
to the Memorandum of Understanding
Between
The Department of Energy of the United States of America
and
The Ministry of Science and Technology of the Republic of Korea
for a Cooperative Laboratory Relationship
On a
Collaborative Project Supporting
Research and Development in the Field of
Innovative Fuel Cycles

Whereas the Department of Energy of the United States of America (DOE) and the Ministry of Science and Technology of the Republic of Korea (MOST) are parties to the Memorandum of Understanding for a Cooperative Laboratory Relationship of June 14, 1996, as extended and amended (hereafter referred to as the "MOU"); and

Whereas representatives of DOE's Office of Nuclear Energy, Science and Technology and MOST's Atomic Energy Bureau have identified common interests in innovative fuel cycles that are cleaner, more efficient, less waste-intensive, and more proliferation-resistant; and

Whereas DOE proposes to cooperate with MOST in recycle/transmutation technologies involving pyroprocessing as a fuel conditioning method that reduces waste streams and enhances proliferation resistance, consistent with U.S. nonproliferation policy and nuclear energy development interests; and

Whereas the Republic of Korea has committed itself to achieve self-reliance in advanced nuclear energy systems and proliferation-resistant nuclear fuel cycle technologies through comprehensive and systematic nuclear energy research and development;

The DOE and MOST (hereinafter referred to as the "Parties") hereby agree to initiate collaborative projects in the areas of Innovative Fuel Cycles, as authorized under Articles II.A.1. and III.E. and F. of the MOU.

I. Principals

- A. DOE's Office of Nuclear Energy, Science and Technology.**
- B. MOST's Atomic Energy Bureau.**

II. Principles

- A. This Annex is subject to the MOU and to the condition that, unless otherwise expressly agreed, the cooperation contemplated under this Annex shall be limited to those activities that do not involve the use of irradiated source material or any special nuclear material.
- B. The implementation of this Annex is subject to the availability of appropriated funds and personnel, and Principals shall carry out their responsibilities subject to the applicable laws and regulations of the Parties' respective countries.

III. Projects

- A. The Parties may establish such projects related to innovative fuel cycles as they agree in writing and/or at an annual meeting of the U.S.-Republic of Korea Joint Standing Committee on Nuclear Energy Cooperation (hereafter referred to as the "JSCNEC").
- B. The Parties' agreement on any project may take the form of a contract between the participating organizations from each side.
- C. With the Parties' agreement, additional organizations from either Party's country or from third countries may be invited to join a project, subject to such terms and conditions as the Parties may specify.
- D. Sensitive Nuclear Technology, as defined by U.S. regulations at 10 CFR Part 810, is specifically excluded from bilateral research under this Annex.

IV. Responsibilities

- A. Each Party shall designate a Technical Coordinator for each project. Each Technical Coordinator will be responsible for his side's project activities including, but not limited to, evaluating technical issues, promoting timely completion of assigned tasks and reporting to his Principal on the project's progress and status.
- B. The Parties shall (unless otherwise agreed) convene in annual technical information exchange meetings, held in both countries on an alternating basis and timed to coincide with the annual meetings of the JSCNEC where practicable, for the purpose of exchanging reports on progress in the agreed collaborative initiatives. Regardless of whether any annual technical information exchange meeting coincides with the annual meeting of the JSCNEC, the DOE and MOST Technical Coordinators for each project will submit a joint report detailing progress made under this Annex to each annual meeting of the JSCNEC.

V. Information and Intellectual Property

Dissemination, use and protection of information used or generated in the activities conducted pursuant to this Annex, and the allocation of rights in intellectual property arising in the course of such activities shall be governed by the provisions set forth in the Agreement Relating to Scientific and Technical Cooperation between the Government of the United States of America and the Government of the Republic of Korea of July 2, 1999.

VI. Duration and Termination

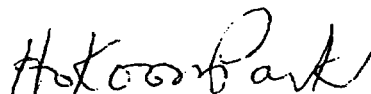
- A. This Annex shall enter into force upon signature, and shall remain in force for five years or until termination of the MOU, whichever occurs first. This Annex may be amended or extended by written agreement of the Parties.
- B. In the event of termination of the MOU or this Annex, activities undertaken under this Annex but not completed at the time of such termination may continue until their completion. However, no new activities may be initiated unless the Parties enter into a new written agreement.
- C. The Annex may be terminated at any time at the discretion of either Party, on six months' advance notification in writing by the Party seeking to terminate it.

Done at Vienna, Austria, this 15th day of September 2003, in duplicate, in the English language.

FOR THE DEPARTMENT OF ENERGY OF
THE UNITED STATES OF AMERICA:



FOR THE MINISTRY OF SCIENCE AND
TECHNOLOGY OF THE REPUBLIC OF
KOREA:



**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF FINANCE OF GREECE
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America (DOE) and the Ministry of Finance of Greece (MOF), hereinafter referred to collectively as the "Participants";

Desiring to cooperate to prevent the illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the improvement of systems for the detection and identification of these materials at Greece's points of entry,

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the MOF, through its Customs Administration, technical assistance in the form of equipment and materials, as well as training and services, for the Customs Administration's use at the Port of Piraeus, the Athens airport, selected land border crossings, and other locations as mutually agreed upon for the purpose of detecting and interdicting illicit trafficking in nuclear and other radioactive material.
2. DOE's technical assistance may include:
 - a. delivery and installation at selected locations in Greece of equipment and devices adapted for customs control conditions (including testing, setup, and demonstration of the equipment and devices);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain equipment and devices;
 - c. training of Customs Administration personnel in the use and maintenance of equipment provided by DOE; and
 - d. additional areas of cooperation of mutual interest to DOE and the Customs Administration.
3. Upon reasonable request, representatives of the DOE may make a technical evaluation of the equipment supplied under this Memorandum of Understanding (MOU) for a period of three years starting from the deployment date of the equipment.

4. DOE and the Customs Administration may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
5. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and MOF or their designated implementing agents.
6. The MOF, through the Customs Administration, should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Greece.
7. The DOE does not warrant the suitability of equipment, materials, training, services or information transferred for any specific use or application by MOF, implementing agents of MOF, or other implementing agents of the Government of Greece. The DOE is not responsible for the use (including breakdowns) of equipment or materials provided under this MOU.

II. PROVISION OF INFORMATION

MOF, through its Customs Administration is expected to furnish the DOE with all data on the use of the DOE-supplied equipment or materials, including raw and summary data on any detections or seizures of special nuclear material and other radioactive material made as a result of the use of the equipment and materials supplied under the MOU. For purposes of this MOU, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

III. NON-TRANSFER, NON-DISCLOSURE

1. Information obtained by either Participant's Government as a result of the technical assessment and implementation of cooperation under this MOU should not be disclosed to a third government without the prior consent of the other Participant. Transfer of information by either Participant's Government, as required under international agreements to which such Government is a party, is not regarded as such disclosure to third governments. The fact of any such transfer of information to a third government should be promptly notified to the other Participant.

2. Unless the written consent of the DOE has first been obtained, the MOF should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than within the Government of Greece.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The equipment and materials provided by the DOE are not subject to the imposition of taxes or duties under the laws of Greece.

V. CONSISTENCY WITH DOMESTIC AND INTERNATIONAL LAW

The MOU represents a political commitment by both sides and does not constitute a legally binding agreement. It is to be implemented by each Participant consistent with the domestic laws of that Participant's Government and with international agreements to which that Participant's Government is a party and other international law to the extent applicable.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU is to begin upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at _____ this _____ day of _____, 2003, in
duplicate, in the English and Greek languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF
FINANCE OF GREECE:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

October 20, 2003

2003-013300

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

FROM: LINTON F. BROOKS
ADMINISTRATOR

SUBJECT: ACTION: Delegation of signature authority for
Memorandum of Understanding (MOU) with Greece's
Ministry of Finance

ISSUE: To seek your approval to sign or designate a delegate to
sign an MOU between DOE and Greece's Ministry of
Finance Concerning Cooperation to Prevent the Illicit
Trafficking in Nuclear and Other Radioactive Material
(Tab A).

BACKGROUND: Cooperation under this non-binding MOU will implement
the Office of International Material Protection and
Cooperation's Second Line of Defense (SLD) Program,
whose mission is to deploy radiation detection equipment at
strategic transit and border crossings (air, land, and sea) in
order to provide governments with the technical means to
detect, deter, and interdict illicit trafficking in nuclear and
other radioactive materials. In Greece, the SLD Program
will install radiation detection equipment at selected sites
(including the Port of Piraeus, Athens airport, and one or
more border crossings) and provide training to Greek
Customs and other law enforcement personnel in the use
and maintenance of the radiation detection equipment.

SENSITIVITIES: The Greek Government has requested U.S. and other
international assistance to address radiological and nuclear
security concerns associated with the Summer Olympic
Games, to be held in Athens in August 2004. To make a
timely response to this request, the MOU should be signed
at the earliest opportunity, which will allow NNSA to
proceed with the immediate installation of radiation
detection equipment for use by Greek authorities.



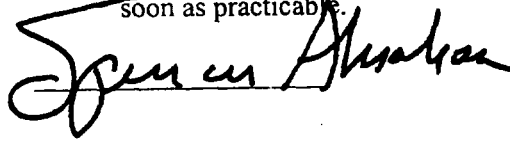
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POLICY IMPACT: None

CONTACT: David Huizenga, Assistant Deputy Administrator for
International Material Protection and Cooperation (NA-25),
x 6-0368

RECOMMENDATION: That you authorize me or my delegate to sign the MOU as
soon as practicable.

APPROVE:

A handwritten signature in black ink, appearing to read "Spencer Abraham", is written over a horizontal line.

DISAPPROVE:

DATE: October 24, 2003

cc: Deputy Secretary

Attachment:

Tab A: Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
POSIVA OY
CONCERNING A COOPERATIVE PROGRAM
IN THE FIELD OF
RADIOACTIVE WASTE MANAGEMENT

The Department of Energy of the United States of America (DOE) and Posiva Oy of Finland, hereinafter collectively referred to as the "Participants",

Noting that DOE, through its Office of Civilian Radioactive Waste Management, has responsibilities relating to the disposal of spent nuclear fuel and radioactive wastes as well as research and development in the area of environmental restoration; and that Posiva Oy engages in research and development, and provides expert services in the field of nuclear waste management and final disposal activities with respect to nuclear waste generated by Finland's use of nuclear energy;

Having a mutual interest in development of radioactive waste management technology; and

Desiring to cooperate in the exchange of information concerning radioactive waste management, including information relating to disposal alternatives for separated waste products and spent fuel;

Have reached the following understanding:

Article 1 Objective

- 1.1 Cooperation under this Memorandum of Understanding (MOU) is to be directed towards a study of topics associated with the management of radioactive waste and related activities of the nuclear fuel cycle.
- 1.2 Cooperation between the Participants is to be on the basis of mutual benefit, equality and reciprocity.

Article 2 Areas of Cooperation

The areas of cooperation covered by this MOU may include the exchange of information and joint study of:

- 2.1. Preparation and packaging of waste forms;
- 2.2. Surface and subsurface storage;
- 2.3. Characterization of geologic formations;
- 2.4. Field and laboratory testing to support geologic characterization;
- 2.5. Operational considerations related to waste packaging, handling, storage and transportation;

- 2.6. Environmental and safety considerations related to the development of waste management facilities;
- 2.7. Institutional and public involvement issues; and
- 2.8. Such other areas as may be mutually agreed to by the Participants, in writing.

Article 3 Forms of Cooperation

The forms of cooperation may include the following:

- 3.1. Exchange of scientists, engineers and other specialists in accordance with Article 5 of this MOU.
- 3.2. Exchange of samples, materials, instruments and components for testing.
- 3.3. Exchange, on a current basis, of scientific and technical information, and results and methods of research and development.
- 3.4. The organization of seminars and other meetings on specific agreed topics concerning waste management technologies in the areas listed in Article 2.
- 3.5. Short visits by specialist teams or individuals to the other Participant.
- 3.6. Joint projects in the form of experiments, tests, designs, analysis, or other technical collaborative activities. Such joint projects would be implemented by the Coordinators and executed by both Participants in accordance with Article 4.
- 3.7. Such other specific forms of cooperation as may be added by the other Participants by agreement in writing.

Article 4 Management

- 4.1. Each Participant is to name one Coordinator to supervise the execution of this MOU. The Coordinators should meet to evaluate the status of, and proposals for, cooperation under this MOU as the Participants deem necessary. Unless otherwise agreed, meetings are to be held alternately in Finland and the United States.
- 4.2. Evaluations of the status of cooperation should include:
 - a. a review of the status of each Participant's radioactive waste management program and program plans; and

- b. an assessment of the mutual benefits of exchanges in the various areas of cooperation listed in Article 2, and consideration of measures designed to ensure that such exchanges are mutually beneficial.
- 4.3. The Coordinators are to consider proposals for joint projects. If it is decided to conduct a project under this MOU that may involve the sharing of costs or that may give rise to intellectual property, such project should be described in writing in a project annex, which should contain all necessary detailed provisions for implementing the project, including funding, intellectual property rights, exchange of equipment and personnel, and the dissemination of information. Each such project annex should refer to this MOU.
- 4.4. Each Coordinator is to designate one Technical Director to oversee the daily implementation of this MOU. Subject to project annexes arranged pursuant to Article 4.3. above, the Technical Directors are to agree on specific programs of cooperation within the policy guidelines set by the Coordinators. Each Technical Director, or his or her designee, is to be responsible for the working contacts between the Participants.

Article 5 Assignment of Personnel

The following provisions are to apply to exchanges of personnel under this MOU:

- 5.1. Each Participant should select qualified staff for assignment to the other Participant.
- 5.2. The Participants are to agree, in a separate staff attachment agreement, to each attachment of staff.
- 5.3. Each Participant is to be responsible for the salaries, insurance and allowances to be paid to its staff.
- 5.4. Each Participant is to pay for the travel and living expenses of its staff while on assignment to the host Participant unless otherwise agreed by the Participants in writing.
- 5.5. The host Participant should help locate acceptable accommodations for the other Participant's staff and for their families, or its contractors, on a mutually agreeable, reciprocal basis.
- 5.6. The host Participant should provide all necessary assistance to the assigned personnel and their families regarding administrative formalities such as assistance in making visa applications and travel arrangements and obtaining work permits.

- 5.7. The assigned staff of each Participant are to conform to the general and special rules of work and safety regulations in force at the host Participant's establishment or as agreed in a separate staff attachment agreement.

Article 6 Intellectual Property Rights and Dissemination of Business-Confidential Information

- 6.1. If the Participants determine that a particular activity may lead to the creation of intellectual property, they will consult with each other and make appropriate written arrangements for the protection and allocation of such intellectual property.
- 6.2. In the event that information identified in a timely fashion as business-confidential is furnished or created under this MOU, each Participant is to protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, and the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.

Article 7 Additional Organizations

Each Participant may invite other governmental agencies and institutions and public and private organizations in their respective countries to participate in cooperative activities under the MOU, at their own expense, and subject to such terms and conditions as the Participants to this MOU may agree.

Article 8 Exchange of Equipment and Supplies

By mutual agreement, a Participant may provide equipment to be utilized in a joint activity. In that event, the following provisions are to apply:

- 8.1. The sending Participant should supply as soon as possible a detailed list of the equipment to be provided together with the associated specifications and technical information documentation, related to the use, maintenance, and repair of the equipment.
- 8.2. The equipment, spare parts, and documentation supplied by the sending Participant are to remain the property of the sending Participant and are to be returned to the sending Participant upon completion of the mutually agreed upon

activity unless otherwise agreed and, subject to Articles 8.4 and 8.5 below, shall be insured by the sending Participant.

- 8.3. The host establishment is to provide the necessary premises and shelter for the equipment, and provide for utilities such as electric power, water, and gas, in accordance with all technical requirements which are to be as mutually agreed upon.
- 8.4. Responsibility for expenses, safekeeping and insurance during the transport of the material from the original location in the country of the sending Participant to the place of entry in the country of the receiving Participant rests with the sending Participant. If the sending Participant elects to have the material returned, it is to be responsible for expenses, safekeeping, and insurance during the transport of the material from the original point of entry in the country of the receiving Participant to the final destination in the country of the sending Participant.
- 8.5. Responsibility for expenses, safekeeping, and insurance during the transport of the material from the place of entry in the country of the receiving Participant to the final destination in the country of the receiving Participant rests with the receiving Participant. If the sending Participant elects to have the material returned, the receiving Participant is responsible for expenses, safekeeping, and insurance during the transport of the material from the final destination in the country of the receiving Participant to the original point of entry in the country of the receiving Participant.
- 8.6. The equipment provided by the sending Participant for carrying out mutually agreed-upon activities is to be considered to be scientific, not having a commercial character.

Article 9 Samples and Materials

Unless otherwise agreed in writing, the following provisions are to apply to the transportation and use of samples and materials provided by one Participant to the other under this MOU:

- 9.1. All samples and materials provided by the sending Participant to the receiving Participant are to remain the property of the sending Participant, and are to be returned to the sending Participant upon completion of the mutually agreed upon activity.
- 9.2. Where one Participant provides samples or materials to the other Participant at the request of the other Participant, the Participant making the request is to bear all costs and expenses associated with the transportation of the sample or material from the location of the sending Participant to the final destination.

- 9.3. Each Participant is to promptly disclose to the other Participant all information arising from the examination or testing of samples or materials exchanged under this MOU. The Participants understand that business-confidential information as defined in Article 6.2., which was developed prior to or outside the scope of this MOU, is to remain business-confidential even though it is contained in the results of an examination or testing of samples or materials. Such information should be identified as business-confidential by the Participant asserting its business-confidential nature as soon as possible after disclosure of all information arising from the examination or testing is made to such Participant and the other Participant should be immediately advised of that identification. All information identified as business-confidential is to be controlled as provided in Article 6.2. It is further understood and agreed that one Participant providing samples or materials to the other Participant may also provide a partial or complete list of the types of information arising from the examination or testing of such samples or materials and which is business-confidential as defined in Article 6.2.

Article 10 Transfer of Information and Equipment

All information or equipment transferred by one Participant to the other Participant under this MOU should be appropriate and accurate to the best knowledge and belief of the transmitting Participant, but the transmitting Participant does not warrant the suitability of the information or equipment transmitted for any particular use or application by the receiving Participant or any third party. Information or equipment jointly developed by the Participants should be appropriate and accurate to the best knowledge and belief of both Participants. Neither Participant warrants the accuracy of the jointly-developed information or the appropriateness of equipment or its suitability for any particular use or application by either Participant or by any third party.

Article 11 General Provisions

- 11.1. Each Participant is to conduct the activities provided for under this MOU in accordance with the applicable laws and regulations of its respective country. All questions related to the interpretation of the MOU arising during its term are to be settled by consultation between the Participants.
- 11.2. Except when otherwise specifically agreed in writing, all costs resulting from cooperation under this MOU are to be borne by the Participant that incurs them. The DOE's ability to implement this MOU is subject to the availability of appropriated funds.
- 11.3. It is understood that this MOU does not create any legally binding obligations between the Participants.

Article 12
Effective Date, Amendment and Termination

- 12.1. Cooperation under this MOU may commence upon signature and continue for 5 years. Subject to Article 12.2, this MOU is to be automatically renewed for further 5-year periods unless either Participant notifies the other in writing at least 6 months prior to the expiration of the first 5-year period or any succeeding 5-year period of its intent to terminate the MOU. The MOU may be amended in writing by the Participants.
- 12.2. This MOU may be terminated at any time at the discretion of either Participant, upon 6 months advance notification in writing to the other Participant.
- 12.3. All joint efforts and experiments not completed at the expiration or termination of this MOU may be continued until their completion under the terms of this MOU.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR POSIVA OY :

Date:

Date:

**Department of Energy**

Washington, DC 20585
October 29, 2003

ES# 2003-013656**MEMORANDUM FOR THE SECRETARY**

THROUGH: JOSEPH P. McMONIGLE
CHIEF OF STAFF

FROM: VICKY A. BAILEY *Vicky A. Bailey*
ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: ACTION: Approve for signature a Memorandum of Understanding between DOE and Posiva Oy of Finland Concerning a Cooperative Program in the Field of Radioactive Waste Management (Tab A).

ISSUE: To seek the Secretary's approval for Assistant Secretary Vicky Bailey or her delegate to sign the informal, non-legally binding Memorandum of Understanding.

DISCUSSION: DOE's Office of Civilian Radioactive Waste Management (RW) seeks to establish a collaborative relationship with Posiva Oy, a Finnish research institute that provides expert services in the field of nuclear waste management. Posiva Oy is responsible for characterization of sites in Finland for final disposal of waste generated by Finland's use of nuclear energy, and will construct and operate Finland's waste disposal facility.

Specific areas of proposed cooperation between RW and Posiva Oy include the exchange of information and joint study of

- preparation and packaging, handling, storage (both surface and subsurface), and transportation of waste forms;
- characterization of geologic formations, and field and laboratory testing to support such characterization;
- environmental and safety considerations related to the development of waste management facilities;
- institutional and public involvement issues.



POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: That you approve signature of the Memorandum of Understanding by Assistant Secretary Vicky Bailey or her delegate.

CONTACT: Paul Jackson, Office of International Science and Technology Cooperation (PI-31), Extension 6-4653

APPROVED:  **DISAPPROVED:** _____ **DATE:** 11/12/03

Attachment:

Tab A: Memorandum of Understanding

cc: Deputy Secretary

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE DEPARTMENT OF INDUSTRY, TOURISM AND RESOURCES
OF THE COMMONWEALTH OF AUSTRALIA
ON COOPERATION IN THE ENERGY SECTOR**

The Department of Energy of the United States of America and the Department of Industry, Tourism and Resources of the Commonwealth of Australia (hereinafter referred to as the Participants),

NOTING past cooperation between the Department of Energy of the United States of America and the Department of Primary Industries and Energy of the Commonwealth of Australia under a Memorandum of Understanding on collaboration in energy research and development signed April 11, 1988, for a ten-year period through April 10, 1998,

DESIRING to establish a framework for cooperation on energy matters and to develop and strengthen bilateral cooperation in areas of mutual interest in the energy sector, including enhancing policy consultation, facilitating bilateral energy trade and investment and advancing energy technology policies to promote research, development and deployment of innovative energy technologies, and

HAVING mutual interest in creating an attractive climate for domestic and foreign private capital investment in the energy sector of their respective countries, and in encouraging partnerships among the business sectors of both countries in the exploration, development and processing of energy resources, products, services and technologies,

Have reached the following understandings:

1. The Participants propose to initiate collaboration as follows:
 - (A) Bringing together senior policy officials, industry leaders and technical experts through regular consultations and organizing and participating in workshops and seminars on mutually determined topics;
 - (B) Exchanging experts and sharing information on current and future trends in the energy sector, energy regulations and policies, including barriers to energy trade and investment, financial issues related to emerging technologies, and technical guidance to advance energy technology development and deployment;
 - (C) Encouraging the development of corporate partnerships, joint ventures, licensing and the transfer of technologies, tools and equipment between organizations in the

United States and Australia, and large scale long-term public-private sector cooperation to advance energy technology and infrastructure development; and

(D) Engaging in additional forms of cooperation, as may be mutually determined by the Participants.

2. Where collaboration may lead to the creation of intellectual property, the Participants will consult with each other and make appropriate arrangements for the protection and allocation of such intellectual property.

3. A High Level Group on Energy Cooperation and Innovation, co-chaired by a representative from each Participant and composed of representatives from each Participant's government, research bodies and industry, will be established to ensure the effective implementation of this Memorandum of Understanding and will meet periodically as mutually agreed. Each Participant will appoint a Principal Coordinator to coordinate activities under this Memorandum of Understanding.

4. This Memorandum of Understanding is not intended to create legally binding obligations between the Participants. The ability of the Participants to undertake the activities contemplated by the Memorandum of Understanding is subject to the availability of appropriated funds.

5. The collaboration contemplated by this Memorandum of Understanding may commence upon signature.

6. The terms of this Memorandum of Understanding may be altered at any time by mutual consent in writing. If either Participant desires to terminate its activities under this Memorandum of Understanding, it will give three (3) months written notice to the other Participant.

Signed at Washington

this day of November, 2003.

**FOR THE DEPARTMENT OF
ENERGY OF THE UNITED
STATES OF AMERICA:**

**FOR THE DEPARTMENT OF INDUSTRY,
TOURISM AND RESOURCES OF THE
COMMONWEALTH OF AUSTRALIA:**



Department of Energy

Washington, DC 20585

November 3, 2003

ES# 2003-013817

MEMORANDUM FOR THE SECRETARY

THROUGH: JOSEPH P. McMONIGLE
CHIEF OF STAFF

FROM: VICKY A. BAILEY *Vicky A. Bailey*
ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: ACTION: Approval of a Memorandum of Understanding (MOU) between the Department of Energy and the Australian Department of Industry, Tourism and Resources (DITR) to be signed during the November 10, 2003, visit to DOE of DITR Secretary Mark Paterson.

ISSUE: To seek the Secretary's approval of this MOU to be signed with the Australian DITR for Cooperation in the Energy Sector.

DISCUSSION: The proposed MOU between DOE and DITR (Tab A) is a legally non-binding MOU, aimed at establishing a framework for cooperation on energy policy matters. In particular, this MOU proposes bringing together senior policy officials, industry leaders, and technical experts through regular energy policy consultations, workshops and seminars on mutually determined topics.

POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: Approve this MOU for signing during the November 10, 2003, visit to DOE of DITR Secretary Mark Paterson.

CONTACT: Kathleen Rees, Office of International Science and Technology Cooperation (PI-31), X6-5902

Spencer Alexander
APPROVED: _____ : **DISAPPROVED:** _____ : **DATE:** 11/10/03

Attachment:

Tab A: DOE/DITR Memorandum of Understanding

cc: The Deputy Secretary



Printed with soy ink on recycled paper

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE SWEDISH NUCLEAR FUEL AND WASTE MANAGEMENT COMPANY
CONCERNING A COOPERATIVE PROGRAM
IN THE FIELD OF
RADIOACTIVE WASTE MANAGEMENT

The Department of Energy of the United States of America (DOE) and the Swedish Nuclear Fuel and Waste Management Company, hereinafter referred to as "the Participants," have been cooperating in the area of radioactive waste management since September 9, 1980;

Having recognized the importance of that cooperation, desire to continue sharing common nonproliferation objectives and consequently have a mutual interest in further joint development of radioactive waste management technology;

Desiring to continue cooperative arrangements for the exchange of a broad range of information concerning radioactive waste management, including information relating to disposal alternatives for separated waste products and spent fuel; and

Noting that the Participants wish to facilitate industrial and commercial exchanges in the field of radioactive waste management between the firms of the countries of the Participants;

Have reached the following understanding:

Article 1 Objective

- 1.1 Cooperation under this Memorandum of Understanding (MOU) is to be directed towards a study of topics associated with the management of radioactive waste and related activities of the nuclear fuel cycle.
- 1.2 Cooperation between the Participants is to be on the basis of mutual benefit, equality and reciprocity.

Article 2 Areas of Cooperation

The areas of cooperation covered by this MOU may include the exchange of information and joint study of:

- 2.1. Preparation and packaging of waste forms;
- 2.2. Surface and subsurface storage;
- 2.3. Characterization of geologic formations;
- 2.4. Field and laboratory testing to support geologic characterization;
- 2.5. Operational considerations related to waste packaging, handling, storage and transportation;

- 2.6. Environmental and safety considerations related to the development of waste management facilities;
- 2.7. Institutional and public involvement issues; and
- 2.8. Such other areas as may be mutually agreed to by the Participants, in writing.

Article 3 Forms of Cooperation

The forms of cooperation may include the following:

- 3.1. Exchange of scientists, engineers, and other specialists in accordance with Article 5 of this MOU.
- 3.2. Exchange of samples, materials, instruments and components for testing.
- 3.3. Exchange, on a current basis, of scientific and technical information, and results and methods of research and development.
- 3.4. The organization of seminars and other meetings on specific agreed topics concerning waste management technologies in the areas listed in Article 2.
- 3.5. Short visits by specialist teams or individuals to the other Participant.
- 3.6. Joint projects in the form of experiments, tests, designs, analysis, or other technical collaborative activities. Such joint projects would be implemented by the Coordinators and executed by both Participants in accordance with Article 4.
- 3.7. Such other specific forms of cooperation as may be added by the Participants by agreement in writing.

Deleted: other

Article 4 Management

- 4.1. Each Participant is to name one Coordinator to supervise the execution of this MOU. The Coordinators should meet to evaluate the status of, and proposals for, cooperation under this MOU as the Participants deem necessary. Unless otherwise agreed, meetings are to be held alternately in Sweden and the United States.
- 4.2. Evaluations of the status of cooperation should include:
 - a. a review of the status of each Participant's radioactive waste management program and program plans; and

- b. an assessment of the mutual benefits of exchanges in the various areas of cooperation listed in Article 2, and consideration of measures designed to ensure that such exchanges are mutually beneficial.
- 4.3. The Coordinators are to consider proposals for joint projects. If it is decided to conduct a project under this MOU that may involve the sharing of costs or that may give rise to intellectual property, such projects are to be described in writing in a project annex, which is to contain all necessary detailed provisions for implementing the project, including funding, intellectual property rights, exchange of equipment and personnel, and the dissemination of information. Each such project annex is to refer to this MOU.
- 4.4. Each Coordinator is to designate one Technical Director to oversee the daily implementation of this MOU. Subject to project annexes arranged pursuant to Article 4.3. above, the Technical Directors are to agree on specific programs of cooperation within the policy guidelines set by the Coordinators. Each Technical Director, or his or her designee, is to be responsible for the working contacts between the Participants.

Article 5 Assignment of Personnel

The following provisions are to apply to exchanges of personnel under this MOU:

- 5.1. Each Participant should select qualified staff for assignment to the other Participant.
- 5.2. The Participants are to agree, in a separate staff attachment agreement, to each attachment of staff.
- 5.3. Each Participant is to be responsible for the salaries, insurance and allowances to be paid to its staff.
- 5.4. Each Participant is to pay for the travel and living expenses of its staff while on assignment to the host Participant unless otherwise agreed by the Participants in writing.
- 5.5. The host Participant should help locate acceptable accommodations for the other Participant's staff and for their families, or its contractors, on a mutually agreeable, reciprocal basis.
- 5.6. The host Participant should provide all necessary assistance to the assigned personnel and their families regarding administrative formalities such as assistance in making visa applications and travel arrangements and obtaining work permits.

- 5.7. The assigned staff of each Participant is to conform to the general and special rules of work and safety regulations in force at the host Participant's establishment or as agreed in a separate staff attachment agreement.

Article 6
Intellectual Property Rights and Dissemination of
Business-Confidential Information

- 6.1. If the Participants determine that a particular activity may lead to the creation of intellectual property, they will consult with each other and make appropriate written arrangements for the protection and allocation of such intellectual property.
- 6.2. In the event that information identified in a timely fashion as business-confidential is furnished or created under this MOU, each Participant is to protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, and the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.

Article 7
Additional Organizations

Each Participant may invite other governmental agencies and institutions and public and private organizations in their respective countries to participate in cooperative activities under the MOU, at their own expense, and subject to such terms and conditions as the Participants to this MOU may agree.

Article 8
Exchange of Equipment and Supplies

By mutual agreement, a Participant may provide equipment to be utilized in a joint activity. In that event, the following provisions are to apply:

- 8.1. The sending Participant should supply, as soon as possible, a detailed list of the equipment to be provided with the associated specifications and technical information documentation related to the use, maintenance, and repair of the equipment.
- 8.2. The equipment, spare parts, and documentation supplied by the sending Participant are to remain the property of the sending Participant and are to be returned to the sending Participant upon completion of the mutually agreed upon

activity unless otherwise agreed and, subject to Articles 8.4 and 8.5 below, shall be insured by the sending Participant.

- 8.3. The host establishment is to provide the necessary premises and shelter for the equipment, and provide for utilities such as electric power, water, and gas, in accordance with all technical requirements, which are to be mutually agreed upon.
- 8.4. Responsibility for expenses, safekeeping, and insurance during the transport of the material from the original location in the country of the sending Participant to the place of entry in the country of the receiving Participant rests with the sending Participant. If the sending Participant elects to have the material returned, it is to be responsible for expenses, safekeeping, and insurance during the transport of the material from the original point of entry in the country of the receiving Participant to the final destination in the country of the sending Participant.
- 8.5. Responsibility for expenses, safekeeping, and insurance during the transport of the material from the place of entry in the country of the receiving Participant to the final destination in the country of the receiving Participant rests with the receiving Participant. If the sending Participant elects to have the material returned, the receiving Participant is responsible for expenses, safekeeping, and insurance during the transport of the material from the final destination in the country of the receiving Participant to the original point of entry in the country of the receiving Participant.
- 8.6. The equipment provided by the sending Participant for carrying out mutually agreed-upon activities is to be considered to be scientific, not having a commercial character.

Article 9 Samples and Materials

Unless otherwise agreed in writing, the following provisions are to apply to the transportation and use of samples and materials provided by one Participant to the other under this MOU:

- 9.1. All samples and materials provided by the sending Participant to the receiving Participant are to remain the property of the sending Participant, and are to be returned to the sending Participant upon completion of the mutually agreed upon activity.
- 9.2. Where one Participant provides samples or materials to the other Participant at the request of the other Participant, the Participant making the request is to bear all costs and expenses associated with the transportation of the sample or material from the location of the sending Participant to the final destination.

- 9.3. Each Participant is to promptly disclose to the other Participant all information arising from the examination or testing of samples or materials exchanged under this MOU. The Participants understand that business-confidential information as defined in Article 6.2., which was developed prior to or outside the scope of this MOU, is to remain business-confidential even though it is contained in the results of an examination or testing of samples or materials. Such information should be identified as business-confidential by the Participant asserting its business-confidential nature as soon as possible after disclosure of all information arising from the examination or testing is made to such Participant and the other Participant should be immediately advised of that identification. All information identified as business-confidential is to be controlled as provided in Article 6.2. It is further understood and agreed that one Participant providing samples or materials to the other Participant may also provide a partial or complete list of the types of information arising from the examination or testing of such samples or materials and which is business-confidential as defined in Article 6.2.

Article 10

Transfer of Information and Equipment

All information or equipment transferred by one Participant to the other Participant under this MOU should be appropriate and accurate to the best knowledge and belief of the transmitting Participant, but the transmitting Participant does not warrant the suitability of the information or equipment transmitted for any particular use or application by the receiving Participant or any third party. Information or equipment jointly developed by the Participants should be appropriate and accurate to the best knowledge and belief of both Participants. Neither Participant warrants the accuracy of the jointly-developed information or the appropriateness of equipment or its suitability for any particular use or application by either Participant or by any third party.

Article 11

General Provisions

- 11.1. Each Participant is to conduct the activities provided for under this MOU in accordance with the applicable laws and regulations of its respective country. All questions related to the interpretation of the MOU arising during its term are to be settled by consultation between the Participants.
- 11.2. Except when otherwise specifically agreed in writing, all costs resulting from cooperation under this MOU are to be borne by the Participant that incurs them. The DOE's ability to implement this MOU is subject to the availability of appropriated funds.
- 11.3. It is understood that this MOU does not create any legally binding obligations between the Participants.

Article 12
Effective Date, Amendment, and Termination

- 12.1. Cooperation under this MOU may commence upon signature and continue for five years. Subject to Article 12.2, this MOU is to be automatically renewed for further 5-year periods unless either Participant notifies the other in writing at least six months prior to the expiration of the first 5-year period or any succeeding 5-year period of its intent to terminate the MOU. The MOU may be amended in writing by the Participants.
- 12.2. This MOU may be terminated at any time at the discretion of either Participant, upon six months advance notification in writing to the other Participant.
- 12.3. All joint efforts and experiments not completed at the expiration or termination of this MOU may be continued until their completion under the terms of this MOU.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE SWEDISH NUCLEAR FUEL
AND WASTE MANAGEMENT
COMPANY:


Date:

Date:

**Department of Energy**

Washington, DC 20585
April 5, 2004

ES# 2004-003127**MEMORANDUM FOR THE SECRETARY**

FROM: VINCENT DEVITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

SUBJECT: ACTION: Approve for signature a non-binding Memorandum of Understanding (MOU) between DOE and the Swedish Nuclear Fuel and Waste Management Company (SNFWM) (Tab A).

ISSUE: To seek your approval for me or my delegate to sign the MOU with SNFWM concerning a cooperative program in the field of radioactive waste management.

DISCUSSION: DOE, through its Office of Civilian Radioactive Waste Management (RW), has responsibilities relating to the disposal of spent nuclear fuel and other radioactive wastes as well as research and development in the area of environmental restoration. SNFWM engages in research and development, and provides expert services in the field of nuclear waste management and final disposal activities with respect to nuclear waste generated by Sweden's use of nuclear energy.

This MOU reflects the interest of the two parties in the further development of radioactive waste management technology. Desiring to cooperate in the exchange of information concerning radioactive waste management, including information relating to disposal alternatives for separated waste products and spent fuel, RW and SNFWM intend to focus on to the following promising areas:

- Preparation and packaging of waste forms;
- Surface and subsurface storage;
- Characterization of geologic formations;



- Field and laboratory testing to support geologic characterization;
- Operational considerations related to waste packaging, handling, storage and transportation;
- Environmental and safety considerations related to the development of waste management facilities;
- Institutional and public involvement issues; and
- Such other areas as may be mutually agreed to by the Participants, in writing.

POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: That you approve signature of the MOU by me or my delegate.

APPROVED: 

DISAPPROVED: 

DATE: 4/30/04

ATTACHMENT:

The MOU

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE NATIONAL DEVELOPMENT AND REFORM COMMISSION
OF THE PEOPLE'S REPUBLIC OF CHINA
ON BILATERAL ENERGY POLICY DIALOGUE

Whereas, the Department of Energy of the United States of America and the National Development and Reform Commission of the People's Republic of China (hereinafter referred to as the "Participating Agencies"), have on-going exchanges of views and expertise under the Peaceful Uses of Nuclear Technologies Agreement, and the Oil and Gas Industry Forum;

Whereas, bilateral collaboration has been carried out in High Energy Physics, Nuclear Physics, Fossil Energy, Energy Efficiency and Renewable Energy, and Energy Information; and

Whereas, the United States and the People's Republic of China recognize that they face similar energy challenges, and that energy policy decisions by one country can have implications for the other in the context of the global energy market;

The Participating Agencies have reached the following understanding:

ARTICLE I

The Participating Agencies intend to form an Energy Policy Working Group (hereinafter referred to as the "Working Group") to conduct energy policy dialogues between the United States and the People's Republic of China. The purpose of the Working Group is to enhance the understanding of energy issues, to promote the exchange of information on energy policies and technologies, and to review and develop cooperative activities on energy-related topics of mutual interest.

ARTICLE II

The objectives of the Working Group include dialogues on:

A) Facilitating exchange of information on energy security;

- B) Discussing energy policies and strategies, such as regulatory development and reform;
- C) Exchanging views on energy efficiency, conservation and related environmental policies of both countries;
- D) Exchanging views on energy technology deployment options and collaborative technology activities, including cooperation on carbon sequestration, hydrogen economy, renewable energy, nuclear, oil and gas, and clean coal; and
- E) Other topics as mutually agreed.

ARTICLE III

For the purposes of promoting closer contacts and mutually beneficial dialogues, the arrangements for the Working Group's meetings should be as follows:

- A) Participants in the dialogues may include representatives from other entities of the United States of America and the People's Republic of China as the Participating Agencies deem appropriate for the agenda for the dialogues; and
- B) Each Participating Agency should appoint an administrative secretary who should make preparations for the dialogues and communicate with the Participating Agencies between dialogues.

ARTICLE IV

The Working Group should be guided by the following procedures:

- A) Dialogues should be held on a regular basis, alternately in the United States of America and in the People's Republic of China;
- B) Special meetings of the Working Group may be held as determined by the Participating Agencies;
- C) The time of dialogues and other meetings should be determined at least one month in advance following consultations between the Participating Agencies;
- D) The agendas for all meetings should be determined by the Participating Agencies; and
- E) It is intended that the participants from both sides will be responsible for their own travel and lodging expenses. The Participating Agency hosting the meeting should be responsible and pay the costs for arrangements

associated with the meeting, including local transportation.

ARTICLE V

The Participating Agencies should conduct dialogues in accordance with applicable laws and regulations of their respective countries and subject to the availability of funds and other resources.

ARTICLE VI

Cooperation under this Memorandum of Understanding (Memorandum) may commence upon signature. Revisions to this Memorandum may be suggested in writing by the Participating Agencies at any time. If one Participating Agency wishes to terminate its participation in this Memorandum, it should provide 90 days' advance notice in writing to the other Participating Agency.

Signed at _____, this _____ day of _____, 2004, in duplicate, in the English and Chinese languages.

FOR THE DEPARTMENT OF
ENERGY OF THE UNITED
STATES OF AMERICA:

FOR THE NATIONAL DEVELOPMENT
AND REFORM COMMISSION OF THE
PEOPLE'S REPUBLIC OF CHINA:

中华人民共和国国家发展和改革委员会
与
美利坚合众国能源部
关于双边能源政策对话的
谅解备忘录

中华人民共和国国家发展和改革委员会与美利坚合众国能源部(以下简称“双方”),

考虑到双方在《中美和平利用核技术合作协定》和中美油气论坛框架的基础上开展了经常性的意见交流和技术讨论,并且在高能物理、核物理、化石能源、能效和可再生能源以及能源信息方面开展了双边合作。

认为双方在能源领域面临类似的挑战,且在全球能源市场环境中,能源政策的影响已经超出了国别的界限。

鉴此,双方达成谅解如下:

第一条

双方计划成立一个能源政策工作组(以下简称“工作组”)来开展中华人民共和国与美利坚合众国之间的能源政策对话。工作组的目的是加强对能源问题的了解,促进能源政策和技术方面的信息交流,以及回顾和开展双方共同关心的能源相关议题的合作。

第二条

工作组的目标是开展以下领域的对话:

(一) 促进能源安全领域信息交流;

- (二) 讨论能源政策和战略,如:监管和改革方面的进展;
- (三) 两国在能效、节能和相关环境政策方面的交流;
- (四) 能源技术使用选择和技术合作活动,如:碳回收、氢能经济、可再生能源、核能、油气和清洁能源等合作;
- (五) 双方同意的其他议题。

第三条

为了促进更紧密的联系以及对双方都有利的对话,工作组会议的安排如下:

- (一) 参加对话的代表应包括双方认为必要的来自中国和美国相关单位的代表;
- (二) 每一方应指定一名行政秘书,负责对话的准备及双方的沟通联络工作。

第四条

工作组应遵守以下工作程序:

- (一) 对话会在中国和美国定期交替举行;
- (二) 根据双方协商决定,工作组可以举行特别会议;
- (三) 对话会和其他会议的时间应经参与方协商后在会议召开前一个月确定;
- (四) 所有的会议日程应由双方决定;
- (五) 双方对话会参与者将承担各自的旅费和住宿费。主

办会议的一方负责承担会议相关的费用，包括提供当地交通。

第五条

双方开展的对话会应遵守各自国家的法律和法规，并可根据资金和其他资源的情况进行调整。

第六条

本谅解备忘录一经签署，合作即展开。本谅解备忘录可由参与方随时以书面形式提出修改建议。如一参与方希望终止参与本谅解备忘录，该方应提前 90 天以书面形式向另一参与方提出。

本谅解备忘录由双方代表于二〇〇四年__月__日在____签署，一式两份。

中华人民共和国
国家发展和改革委员会
代表

美利坚合众国
能源部
代表




Department of Energy
Washington, DC 20585

May 19, 2004

ES# 2004-005231

MEMORANDUM FOR THE SECRETARY

FROM: VINCENT DEVITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH: KYLE E. MCSLARROW
DEPUTY SECRETARY

SUBJECT: **ACTION:** Request that you approve the attached
"Memorandum of Understanding between the Department of
Energy of the United States of America and the National
Development and Reform Commission of the People's
Republic of China on Bilateral Energy Policy Dialogue."

ISSUE: The signing of this MOU is scheduled for May 23 in
Amsterdam when you meet with Vice Chairman Zhang
Guobao of the National Development and Reform
Commission of China on the margins of the 9th International
Energy Forum.

During a visit to Beijing in January 2004, you met with
NDRC Chairman MA Xin and agreed to launching the
bilateral consultations that would serve to provide
opportunities for exchange of views and information on a
range of energy issues, including energy security and
policies, regulatory development and reform issues, energy
efficiency, and energy technology development options. The
DOE and the NDRC are already engaged in exchange of
views and expertise on Peaceful Uses of Nuclear
Technologies and the Oil and Gas Industry Forum. Also, the
two countries have on-going bilateral collaboration in high
energy physics, nuclear physics, fossil energy, energy
efficiency and renewable energy, and energy information.
The U.S.-China Energy Policy Dialogue would provide an
overarching forum for policy level consultations as the two
countries, now the two largest energy consumers in the
world, face similar challenges and opportunities.

BACKGROUND:

DOE's Office of Policy and International Affairs staff negotiated language for this non-binding MOU with NDRC staff with the assistance of the American Embassy in Beijing and the State Department's China Desk. PI also consulted closely with General Counsel staff on the language.

The translation accuracy of the Chinese versions is being reviewed by the Department of State for an official translation certification. The official certification is expected in time for the signing. Meanwhile, please note that the U.S. Embassy staff, one native Chinese speaker and one English native speaker, have compared the two versions and verified the accuracy of translation on an informal basis.

DISCUSSION: None.

SENSITIVITIES: None.

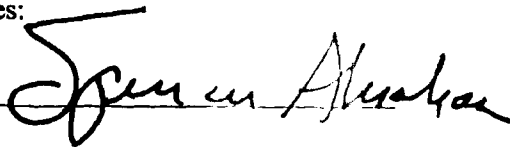
POLICY IMPACT: None.

RECOMMENDATION: That you approve the attached MOU.

Attachment: Memorandum of Understanding between the Department of Energy of the United States of America and the National Development and Reform Commission of the People's Republic of China on Bilateral Energy Policy Dialogue.

Concurrences:

APPROVE:



DISAPPROVE: _____

DATE: May 21, 2004

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF _____ OF THE ITALIAN REPUBLIC
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America (DOE) and the Ministry of _____ (MO__) of the Italian Republic, hereinafter referred to collectively as the "Participants";

Desiring to cooperate to prevent the illicit trafficking in nuclear and other radioactive materials through technical and methodological cooperation, including the improvement of systems for the detection and identification of these materials at Italy's points of entry;

Recognizing the increasing threats to global security posed by terrorists' attempts to acquire nuclear and other weapons of mass destruction;

Being convinced of the need to detect, deter, and where necessary, to interdict terrorist attempts to disrupt global trade through or from Italian ports or to attempt to make use of commercial shipping to further terrorist schemes;

Recognizing the high volume of trade between seaports in Italy and the United States, and the role of Italian ports as intermodal transport hubs for cargo originating in many countries; and

Supporting the U.S. Container Security Initiative, which is designed to safeguard global maritime trade by enhancing cooperation at seaports worldwide to identify and examine high-risk containers and ensure their in-transit integrity;

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the MO__ technical assistance in the form of equipment and materials, as well as training and services, for the MO__'s use at selected seaports, airports, and land border crossings within Italy for the purpose of detecting and interdicting illicit trafficking in special nuclear material and other radioactive material.
2. DOE's technical assistance may include:

- a. delivery and installation at selected seaports, airports, and land border crossings within Italy of equipment and devices adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment and devices);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain equipment and devices;
 - c. training of MO__ personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - d. additional areas of cooperation of mutual interest to DOE and MO__.
3. Upon reasonable request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum of Understanding (MOU) for a period of three years starting from the deployment date of the equipment.
4. DOE and the MO__ may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
5. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and the MO__ or their designated implementing agents.
6. The MO__ should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination at designated seaports, airports, and land border crossings within Italy.
7. The DOE does not warrant the suitability of equipment, materials, training, services or information transferred for any specific use or application by the MO_. The DOE is not responsible for the use (including breakdowns) of equipment or materials provided under this MOU.

II. PROVISION OF INFORMATION

The MO__ is expected to furnish the DOE with all data on the use of the DOE-supplied equipment or materials, including raw and summary data on any detections or seizures of special nuclear material and other radioactive material made as a result of the use of the equipment and materials supplied under the MOU. For purposes of this MOU, "special

nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

III. NON-TRANSFER, NON-DISCLOSURE

1. Information obtained by either Participant's Government as a result of the technical assessment and implementation of cooperation under this MOU is not to be disclosed to a third party without the prior consent of the other Participant. Transfer of information by either Participant's Government, as required under international agreements to which such Government is a party, is not regarded as such disclosure to third parties. The fact of any such transfer of information to a third party should be promptly notified in writing to the other Participant.
2. Unless the written consent of the DOE has first been obtained, the MOU is not to transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than to governmental authorities of the Italian Republic.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE is not to pay any taxes, duties or other charges on equipment, materials, training and services provided by the DOE under this MOU.

V. CONSISTENCY WITH APPLICABLE LAW

The MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant are to be carried out in accordance with the laws and regulations of that Participant's Government and applicable agreements to which that Participant's Government is subject.

V. EFFECTIVE DATE AND DURATION

Implementation of this MOU is to begin upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at _____ this _____ day of _____, 2004, in duplicate, in the English and Italian languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF
_____ OF THE ITALIAN
REPUBLIC:



The Secretary of Energy
Washington, DC 20585

June 24, 2004

The Honorable Giuseppe Pisanu
Minister of the Interior
Palazzo del Viminale
Piazza del Viminale, 1
00184 Roma
Italy

Dear Minister Pisanu:

In March, members of my staff met with representatives from the Italian Ministries of Productive Activities and Infrastructure and Transportation, as well as officials from Customs, Guardia di Finanza, and the Italian Port Association to discuss the U.S. Department of Energy's Megaports Initiative. The equipment deployed under this bilateral security program will detect the presence of nuclear and other radioactive materials in shipping containers as they move through a port. We have had productive meetings in recent months with Ing. Colcerasa Fabrizio of your Ministry and understand that you may be interested in implementing this initiative in Italy. I appreciate the time and attention you and your government have given to this important international security initiative.

We remain very interested in working with you to implement this program in Italy. Our Department is eager to move ahead with providing equipment, training, and expertise to your Customs officials at the Port of Genoa and at other Italian ports of mutual interest. To document our mutual desire to work cooperatively on this program, I propose that we sign a Memorandum of Understanding (MOU) during my trip to Europe the week of July 26, 2004. A draft MOU was provided to your staff via the U.S. Embassy in Rome, and I have enclosed a copy of the draft MOU for your consideration.

I am confident that we can implement the program effectively at the Port of Genoa in a way that supports our mutual security goals and has minimal impact on critical port operations. I look forward to hearing from you regarding your availability to sign the MOU in July.

Sincerely,

A handwritten signature in black ink, reading "Spencer Abraham".

Spencer Abraham

Enclosure



Printed on recycled paper

**MEMORANDUM OF UNDERSTANDING
BETWEEN**

**THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE CENTRAL AGENCY FOR TAX ADMINISTRATION OF
THE KINGDOM OF SPAIN**

**CONCERNING COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America (DOE) and the Central Agency for Tax Administration of the Kingdom of Spain, hereinafter referred to collectively as the "Participants";

Being convinced of a need to deter, prevent, and interdict any terrorist attempt to disrupt global trade or to attempt to make use of commercial shipping to further terrorist schemes;

Desiring to cooperate to prevent the illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the improvement of technical systems for the detection and identification of these materials at Spain's points of entry;

Noting the U.S. Container Security Initiative, which is designed to safeguard global maritime trade by enhancing cooperation at seaports worldwide to identify and examine high-risk containers and ensure their in-transit integrity; and

Acknowledging the Declaration of Principles Governing Cooperation, Including the Posting of U.S. Customs Officers at Spanish Ports between the Spanish Customs and Excise Department of the Central Agency for Tax Administration of the Kingdom of Spain and the Customs Service of the United States of America (now, U.S. Customs and Border Protection Service) signed January 8, 2003 (hereinafter "CSI Declaration of Principles");

COME TO THE FOLLOWING UNDERSTANDING:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the Central Agency for Tax Administration of the Kingdom of Spain, through the Spanish Customs and Excise Department, technical assistance in the form of equipment and materials, as well as training and services, for the Customs and Excise Department's use at the Port of Algeciras and other mutually agreed Spanish ports to examine in-transit cargo containers en route to U.S. ports, for the purpose of detecting and interdicting illicit trafficking in nuclear and other radioactive material.
2. DOE's technical assistance may include:
 - a. delivery and installation at selected locations in Spain of equipment and devices adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment and devices);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain equipment and devices;
 - c. training of Customs and Excise Department personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - d. additional areas of cooperation of mutual interest to DOE and the Customs and Excise Department in support of the U.S. Container Security Initiative and the CSI Declaration of Principles.
3. Upon reasonable request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum of Understanding (Memorandum) for a period of three years starting from the deployment date of the equipment.
4. DOE and the Customs and Excise Department may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this Memorandum.
5. The terms of any technical assistance provided under this Memorandum are expected to be set forth in contracts or other written arrangements between DOE and the Customs and Excise Department or their designated implementing agents.

6. The Central Agency for Tax Administration, through the Customs and Excise Department, should endeavor to ensure that equipment and materials provided to the Customs and Excise Department under this Memorandum are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Spain.
7. The DOE does not warrant the suitability of equipment, materials, training, services or information transferred for any specific use or application by the Central Agency for Tax Administration, implementing agents of the Central Agency for Tax Administration, or other implementing agents of the Government of the Kingdom of Spain. The DOE is not responsible for the use (including breakdowns) of equipment or materials provided under this Memorandum.

II. PROVISION OF INFORMATION

The Customs and Excise Department is expected to furnish the DOE with all data on the use of the DOE-supplied equipment or materials, including raw and summary data on any detections or seizures of special nuclear material and other radioactive material made as a result of the use of the equipment and materials supplied under this Memorandum. For purposes of this Memorandum, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

III. NON-TRANSFER, NON-DISCLOSURE

1. Information obtained by either Participant's Government as a result of the technical assessment and implementation of cooperation under this Memorandum should not be disclosed to a third party without the prior consent of the other Participant. Transfer of information by either Participant's Government, as required under international agreements to which such Government is a party, is not regarded as such disclosure to third parties. The fact of any such transfer of information to a third party should be promptly notified to the other Participant in writing.
2. Unless the written consent of the DOE has first been obtained, the Customs and Excise Department should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this Memorandum, other than within the Government of the Kingdom of Spain.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE is not to pay any taxes, duties or other charges on equipment, materials, training and services provided by the DOE under this Memorandum.

V. GENERAL PROVISIONS

1. This Memorandum represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant under this Memorandum are to be carried out in accordance with the laws and regulations of that Participant's Government and with international agreements to which that Participant's Government is party.
2. All activities of each Participant under this Memorandum are subject to the availability of appropriated funds, personnel and other resources.

VI. EFFECTIVE DATE AND DURATION

Implementation of this Memorandum is to begin upon signature by both Participants, and continue for five years unless earlier terminated in accordance with the provisions of this Section VI. This Memorandum may be revised by the Participants in writing at any time, and may be extended for additional periods by the Participants in writing. If

either Participant wishes to end its cooperation under the Memorandum, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at _____ this _____ day of _____, 2004, in duplicate, in the English and Spanish languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE CENTRAL AGENCY OF
TAX ADMINISTRATION OF
THE KINGDOM OF SPAIN:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

July 16, 2004

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR PAUL M. LONGSWORTH
DEPUTY ADMINISTRATOR FOR
DEFENSE NUCLEAR NONPROLIFERATION

FROM: LINTON F. BROOKS
ADMINISTRATOR

A handwritten signature in black ink, reading "Linton F. Brooks", is written over the printed name of the Administrator.

SUBJECT: DELEGATION OF SIGNATURE AUTHORITY

I authorize you or your designee to sign on behalf of the Department of Energy the attached Memorandum of Understanding with the Central Agency for Tax Administration of the Kingdom of Spain in Spain to cooperate on the prevention of illicit trafficking in nuclear and other radioactive materials. This non-legally binding political agreement will enable the National Nuclear Security Administration's Second Line of Defense Program to implement the Megaports Initiative.

Attachment



Printed with soy ink on recycled paper

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF MINES, INDUSTRY AND ENERGY
OF THE REPUBLIC OF EQUATORIAL GUINEA
FOR
COOPERATION ON ENERGY POLICY, SCIENCE AND
TECHNOLOGY, AND ENERGY TECHNOLOGY
DEMONSTRATION**

The Department of Energy of the United States of America and the Ministry of Mines, Industry and Energy of the Republic of Equatorial Guinea, hereinafter referred to as the "Participants":

Having an interest in establishing cooperation in the areas of energy policy, science and technology, and energy technology demonstration;

Having a mutual interest in exchanging experience and views on opportunities for the utilization of energy technologies and in fostering collaboration between the two countries in these areas, particularly through training, educational and capacity building activities;

Recognizing that energy security and the quality of life can be enhanced through effective and environmentally sound utilization of energy sources; and

Further recognizing that cooperation in the areas of energy policy, science, technology, and energy technology demonstration would promote increased economic interaction, facilitate energy technology transfer, accelerate the commercialization of energy systems and products, and expand opportunities for international trade between the United States and Equatorial Guinea;

Have reached the following understandings:

ARTICLE I

Under this Memorandum of Understanding (MOU), the Participants will facilitate joint activities relating to energy policy, science and technology, and energy technology demonstration in areas of mutual interest, including, but not limited to, the following:

1. Fossil energy, including clean power generation and natural gas;

2. Energy sector regulation, including assistance with policy analysis, formulation, and implementation, and privatization and restructuring;
3. Power project development; and
4. Such other areas as may be mutually determined by the Participants.

ARTICLE II

The forms of cooperation in the areas specified in Article I of this MOU may include the following:

1. Exchange of energy experts, specialists and scientists to participate in cooperative activities;
2. Organizing and participating in seminars, workshops and conferences on specific mutually agreed topics;
3. Exchange of information on the development and utilization of energy technologies that are economically and environmentally acceptable;
4. Sharing relevant nonproprietary information and practical experience in energy fields;
5. Assisting in capacity development through training, joint government-industry activities, faculty and student exchanges and tours, and exploration of ways to promote transfer of skills and technology to support human resources development, policy development, and institutional infrastructure; and
6. Such other forms of cooperation within the scope of this MOU as the Participants may mutually agree.

ARTICLE III

- A. The Participants intend to establish the United States-Equatorial Guinea Consultative Group to promote energy policy consultations, energy technology demonstration, and energy training and education with a focus on capacity building in Equatorial Guinea.
- B. The Consultative Group is to consist of officials designated by the Participants. The Participants, as mutually agreed, may include additional representatives as the Participants deem appropriate based on the agenda of their consultations.
- C. Each Participant will appoint an official contact to prepare for the consultations and energy training and to be responsible for communication between the Participants.

- D. In view of the significant distance between the two countries, electronic and telephonic communications will be the preferred modes of interaction.
- E. Meetings of the Consultative Group or the selected representatives of the Participants may be held upon mutual agreement.

ARTICLE IV

Each Participant intends to facilitate, through coordination with the appropriate competent authorities, the granting of visas and other forms of official permission for entry to and exit from its territory of personnel of the other country engaged in cooperative activities under this MOU.

ARTICLE V

- A. Each Participant is to conduct the activities provided for under this MOU in accordance with the applicable laws and regulations of its respective country. Each Participant is responsible for the costs of its own activities under this MOU, unless the Participants otherwise agree in writing.
- B. It is understood that this MOU does not create any legally binding obligations between the Participants.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:

FOR THE MINISTRY OF MINES,
INDUSTRY AND ENERGY OF
THE REPUBLIC OF
EQUATORIAL GUINEA:

Date:

Date:

DOE International Agreements Evaluation Questionnaire

Title of Agreement: Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Mines, Industry and Energy of the Republic of Equatorial Guinea for Cooperation on Energy Policy, Science and Technology, and Energy Technology Demonstration

1. *What are the technical goals of the agreement?*

There are no technical goals. The MOU, a non-legally binding arrangement, is the mechanism by which the participants may cooperate in the future.

2. *What are the non-technical/policy goals of the agreement?*

This is an agreement that the Secretary of Energy and the Equatorial Guinea President, Teodoro Obiang Nguema, discussed and agreed to during their meeting in Washington on July 7, 2004. In addition, the signing of this agreement will strengthen ties with Equatorial Guinea as the Department utilizes this avenue to enhance energy security. An interagency meeting was held July 22, 2004, in which U.S. agencies, including the Departments of State and Commerce, expressed their support of this endeavor

3. *What are the specific outcomes (milestones) and anticipated products for the agreement?*

The Department is looking at assisting Equatorial Guinea as the country expands its electricity sector, thereby providing electricity to a larger area of its population. This effort would be in addition to discussions on a natural gas development and use strategy as well as the reduction or elimination of gas flaring.

4. *How does this agreement support the National Energy Plan? (Please be specific.)*

Yes: ¹

8.12: "The NEPD Group recommends that the President direct the Secretaries of State, Commerce and Energy to reinvigorate the U.S.-Africa Trade and Economic Cooperation Forum and the U.S.-African Energy Ministerial process; deepen bilateral and multilateral engagement to promote a more receptive environment for U.S. oil and gas trade, investment, and operations; and promote geographic diversification of energy supplies, addressing such issues as transparency, sanctity of contracts, and security."

8.13: "The NEP Group recommends that the President direct the Secretaries of State, Commerce, and Energy to support more transparent, accountable, and responsible use of oil resources in African producer countries to enhance the stability and security of trade and investment environments."

5. *Will technologies be transferred from the U.S. or to the U.S.? If so, please be specific.*

At the present time, it is not envisioned that U.S. technologies will be transferred to Equatorial Guinea. If and when specific projects are discussed, an appropriate legally-binding agreement will be set in place outlining the necessary legal conditions, including intellectual property rights and the transfer of equipment and/or supplies.

6. *What are the potential commercial benefits and costs to U.S. firms?*

There are several U.S. interests already operating in Equatorial Guinea, including Marathon Oil, Amerada Hess and ExxonMobil. It is anticipated that this agreement can further U.S. interests by creating the mechanism by which these companies can assist in the development of: a methanol plant, a planned LNG plant and a power plant built by Marathon Oil. These activities will utilize Equatorial Guinea's vast natural gas resources. In addition, with the requested assistance of DOE to assist Equatorial Guinea in the expansion of its electricity sector, DOE can use the resources of its U.S. private industry in this endeavor thereby providing U.S. private industry with a leg-up on the competition.

7. *What are the environmental implications (potential benefits or impacts) of the activities under the agreement?*

There are no environmental implications as this is the mechanism under which projects can take place.

8. *What are the benefits to be derived from the activities under this agreement?*

- Discuss what will be accomplished that could not be done by the U.S. alone.
- Discuss what new scientific and technical information will result.
- Discuss the potential political benefits.
- Describe any other benefits that might flow from this agreement, such as time savings or access to unique facilities.

The benefits to the United States include: (a) keeping our commitment to strengthen our bilateral relationship with Equatorial Guinea thereby reinforcing U.S. reliability; (b) expanding our potential influence as we assist Equatorial Guinea in developing open, transparent and uncorrupted activities leading to sources of energy; (c) provide a mechanism by which U.S. industry can expand their market; and (d) potential source of energy to the U.S. Additional benefits may be forthcoming as project agreements under the MOU are addressed between the participants.

9. *What costs have been and will be incurred?*

- Discuss manpower, travel, and material resource costs where applicable.
- Discuss any cost-sharing arrangements with the bilateral partner.
- Describe any potential political costs.

To date, no costs have been associated with this MOU. Under the MOU it is anticipated costs to DOE will be travel funds, including per diem, to/from Equatorial Guinea.

10. *What amounts of sources of funding have been and will be used?*

- Discuss whether adequate resources are available to accomplish the goals and objectives of the agreement.

Under the MOU, other than the occasional travel to/from Equatorial Guinea, DOE will need to identify working level points of contact to ensure ongoing communication. It is anticipated that only 1 full time equivalent, for oversight, will be required.




Department of Energy

Washington, DC 20585

2004-008203

August 6, 2004

MEMORANDUM FOR THE SECRETARY

FROM: VINCENT DE VITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

SUBJECT: ACTION: Grant Authority to Sign Memorandum of Understanding (MOU) with the Ministry of Mines, Industry and Energy of the Republic of Equatorial Guinea.

ISSUE: To seek the Secretary's approval for signature to sign an MOU between DOE and the Ministry of Mines, Industry and Energy of the Republic of Equatorial Guinea for Cooperation on Energy Policy Science and Technology, and Energy Technology Demonstration.

DISCUSSION: On August 6, 2004, Vice Minister, Republic of Guinea will be here for a meeting and is expected to sign the proposed MOU (Tab A). The proposed MOU provides for cooperation in assisting Equatorial Guinea as the country expands electricity sector, natural gas, and energy security. Further detail is provided in the attached International Agreements Evaluation Questionnaire (Tab B). The MOU has been reviewed and approved by the Offices of the General Counsel and Policy and International Affairs.

POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: Approve for signature and authorize me, or my designee, to sign this MOU.

APPROVED: 

DISAPPROVED: _____

DATE: AUG - 6 2004

Attachments:

Tab A: DOE/Equatorial Guinea Memorandum of Understanding

Tab B: International Agreements Evaluation Questionnaire



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Annex V
to the Memorandum of Understanding
Between The Department of Energy of the United States of America and
The Ministry of Science and Technology of the Republic of Korea
for a Cooperative Laboratory Relationship
On a
Collaborative Project Supporting the International Nuclear
Energy Research Initiative (I-NERI)

I. General

The purpose of this Annex is to establish, under the Memorandum of Understanding (MOU) between the Department of Energy of the United States of America (U.S.) and the Ministry of Science and Technology of the Republic of Korea (ROK), hereinafter referred to as the Parties, terms for a bilateral collaboration project on R&D, focused on advanced technologies for improving the cost, safety, and proliferation-resistance of nuclear energy systems.

The Parties will engage in this cooperation as part of an International Nuclear Energy Research Initiative (I-NERI) program. The objective of I-NERI is to provide an effective means for international collaboration on a leveraged, cost-shared *quid pro quo* basis, directed toward achieving better-coordinated and more cost-effective nuclear energy R&D for the mutual benefit of the Parties.

Cooperation under this Annex shall be subject to the terms and conditions of the MOU. The Parties agree to provide results of all activities undertaken under this Annex to the Joint Standing Committee on Nuclear Energy Cooperation during its annual meetings.

Cooperation between the two Parties shall be on the basis of mutual benefit, equality, and reciprocity.

II. Objectives

The overall objectives for cooperation under this Annex are to:

1. promote collaboration between the Parties, their contractors, or subcontractors to improve development of nuclear energy;
2. develop advanced concepts and scientific breakthroughs in nuclear fission and reactor and fuel cycle technologies to address and overcome the principal technical, societal, and economic obstacles to the expanded peaceful use of nuclear energy; and
3. promote and maintain each nation's nuclear science and engineering infrastructure to sustain the capabilities necessary for the development and utilization of nuclear energy.

III. Project Description

I-NERI intends competitively to select and fund collaborative research and development activities in advanced nuclear energy technology from the Parties, their contractors, or subcontractors. Evaluation and selection of collaborative research and development activities will be achieved through Bilateral Evaluation Committees (BECs) as stated in Section IV, below.

Cooperation under this Annex may include, but is not limited to the following areas:

- Next-generation reactor and fuel cycle technology concepts;
- Next-generation reactor power plant designs with higher efficiency, lower cost, and improved safety and proliferation resistance;
- Innovative nuclear plant design, manufacturing, construction, operation, maintenance, and decommissioning technologies;
- Advanced nuclear fuels;
- Fundamental nuclear science areas, and;
- Such other areas as the Parties may agree.

Sensitive Nuclear Technology, as defined by 10 CFR 810, is specifically excluded from bilateral research under this Annex.

IV. Management

Bilateral Committee:

The Parties agree to establish a Bilateral I-NERI Committee (BINERIC) to provide programmatic direction and oversight of an Executive Agent from each Party for the bilateral project. The BINERIC will establish the specific R&D scope and evaluation criteria through approval of the solicitation, select activity for award based on the recommendation of the Executive Agents, and determine annual activity funding. The Parties will each appoint 2 to 4 representatives to serve on the BINERIC, each Party being represented equally. Decisions of the BINERIC shall be made by consensus.

The BINERIC shall establish rules and procedures on activity selection, funding, meetings, expenses and others necessary for its operation and shall establish guidelines for the functioning of the Executive Agents.

Role of the Executive Agents:

The Parties agree the Executive Agents, acting under the direction and oversight of the BINERIC, will administer all project funds contributed by their respective Parties, and negotiate and manage all contracts established as described below.

The general duties of the Executive Agents are as follows.

Prepare solicitations for proposals and criteria for proposal evaluation. Each solicitation and associated evaluation criteria will be subject to BINERIC approval prior to issuance. Responders will be required to form bilateral activity teams.

Based on the instructions of the BINERIC, establish BECs, the members of which will be drawn in equal numbers from each nation, selected on the basis of technical competence, and free of any conflicts of interest relating to the I-NERI program and the organizations involved in the proposals its members review.

Receive and screen all proposals for conformance to solicitation requirements, and forward all responsive proposals to the BECs for peer review, ranking in order of technical merit, and recommendations of proposals for awards.

Subject to the BINERIC's selection of activities to be funded, issue contracts for the successful proposals. Each contract will be established with the proposal's lead organization, U.S. or ROK, and that organization will subcontract with the other participants named in the proposal.

Monitor activity progress and reauthorize funding for subsequent phases of multi-year phased activities, negotiate programmatic modifications as appropriate, or terminate an activity if warranted by lack of reasonable progress against expenditures, based on BINERIC direction.

Prepare periodic status reports and distribute activity reports to the BINERIC and to other I-NERI participants as appropriate.

V. Finance and Implementation Issues

Except when the Parties otherwise agree in writing, each Party shall contribute equally to support implementation of the I-NERI project.

There is no obligation to make awards and commit funds for any projects in a given fiscal year.

Cooperation under this Annex shall be subject to the availability of personnel and funds.

Any questions of interpretation or implementation relating to this Agreement arising during its term shall be resolved by agreement of the Parties.

VI. Information and Intellectual Property

Dissemination, use, and protection of information used or generated in the activities conducted pursuant to this Annex, and the allocations of rights in intellectual property arising in the course of such activities shall be governed by the provisions set forth in Annex I to the MOU.

VII. Duration and Termination

This Annex shall enter into force upon the latter date of signature, and shall remain in force for five years or until termination of the MOU, whichever occurs first. This Annex may be amended or extended by mutual written agreement of the Parties.

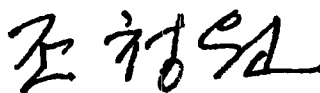
In the event that the Parties agree not to extend the current MOU or terminate the Annex, activities undertaken under this Annex at the time of termination of the MOU or the Annex shall continue until their completion. However, no new activities may be implemented unless the Parties enter into a new agreement.

This Annex may be terminated at any time at the discretion of either Party, upon six months' advance notification in writing by the Party seeking to terminate it. Such termination shall be without prejudice to the rights that may have accrued under this Annex to either Party up to the date of such termination.

Done at Washington, this 16th day of May 2001, in duplicate, in the English language.

FOR THE DEPARTMENT OF ENERGY OF
THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF SCIENCE AND
TECHNOLOGY OF THE REPUBLIC OF
KOREA:



**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE MINISTRY OF SCIENCE AND TECHNOLOGY
OF THE REPUBLIC OF KOREA
AND
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
FOR A COOPERATIVE LABORATORY RELATIONSHIP**

WHEREAS, the Ministry of Science and Technology of the Republic of Korea (MOST) and the U.S. Department of Energy of the United States of America (USDOE), hereinafter referred to as the Parties, have been cooperating for some time in several areas designed to foster the peaceful and nonexplosive uses of atomic energy;

WHEREAS, this program of peaceful cooperation has been intensifying with the expansion of civil nuclear power activities in the Republic of Korea;

WHEREAS, the Parties perceive that they will benefit from an expansion of their technical cooperation and collaboration in a number of fields related to the civil uses of atomic energy;

WHEREAS, the Parties also share the view that their existing and prospective new cooperation in the nuclear field will be mutually beneficial if it is subjected to regular monitoring and guidance by the Joint Standing Committee on Nuclear and Other Energy Technologies (JSCNOET), which meets annually, alternately in the United States and in the Republic of Korea, to review and plan cooperative activities; and

WHEREAS, the Parties attach great importance to achieving the goals of the Agreement for Cooperation between the Government of the United States of America and the Government of the Republic of Korea Concerning Civil Uses of Atomic Energy, signed at Washington, on November 24, 1972, as amended, hereinafter referred to as the Peaceful Uses Agreement;

THE PARTIES HEREBY AGREE AS FOLLOWS:

**ARTICLE I
BASIC PRINCIPLES**

Each Party agrees that:

- A. All cooperative activities carried out under this Memorandum of Understanding (MOU) shall involve peaceful uses of nuclear energy, exclusively. All such activities shall be subject to the Peaceful Uses Agreement.
- B. The institutions identified in Annex III, hereinafter referred to as participating institutions, may carry

out cooperative activities under this MOU, subject to the mutual agreement of the Parties in writing and subject to all of the terms and conditions of this MOU.

- C. Each Party and each participating institution may propose areas of cooperation to be conducted under this MOU. Such areas of cooperation normally shall be of programmatic interest to the Parties and to the participating institutions that are involved in cooperative activities.
- D. Unless otherwise agreed to in writing by the Parties, all costs shall be borne by the Party that incurs them.
- E. Cooperation under this MOU shall be conducted according to the international obligations and applicable laws and regulations of the Parties, including laws relating to the availability of appropriated funds.
- F. Nothing in this MOU shall alter or affect any existing agreements between the Parties or the participating institutions in fields related to the civil uses of atomic energy.

ARTICLE II IMPLEMENTATION

- A. The technical areas of collaboration under this MOU may include the following:
 - 1. Nuclear Power/Research Reactors and Associated Fuel Technology;
 - 2. Nuclear Waste Management;
 - 3. Nuclear Safety and Environment;
 - 4. Applications of Radiation and Radioisotopes;
 - 5. Nuclear Safeguards Technology;
 - 6. Basic Sciences;
 - 7. Education;
 - 8. Health Physics;
 - 9. Environmental Research related to Nuclear Technology;
and
 - 10. Such other fields as may be mutually agreed to by the Parties in writing.

- B. The participating institutions may make recommendations to the Parties regarding the implementation of staff assignments, exchanges, and cooperative activities. The implementation of such activities shall be subject to separate exchanges of letters between the participating institutions involved in such activities. Such written arrangements shall be subject to concurrence by the Parties.
- C. Whenever a program of cooperation is established, each Party shall designate a Lead Coordinator. Each participating institution involved in the program shall designate its technical/scientific representative to be responsible for carrying out the program. The designation of the technical/scientific representative(s) shall be subject to concurrence by the Parties.

**ARTICLE III
FORMS OF COOPERATION**

The forms of cooperation carried out under this MOU may include:

- A. Exchange of scientists, engineers and other specialists for agreed periods for participation in agreed research, development, analysis, design and experimental activities conducted in research centers, laboratories, engineering offices and other facilities and enterprises of each Party, each Party's contractors, or each participating institution. Such exchanges of personnel shall be conducted in accordance with Article IV of this MOU.
- B. Exchange of samples, materials, instruments and components for testing;
- C. Exchange, on a current basis, of scientific and technical information, and results and methods of research and development in accordance with Article V of this MOU;
- D. Organization of, and participation in, seminars and other meetings on specific mutually agreed topics in the fields listed in Article II of this MOU;
- E. Joint projects in which the Parties agree to share the work and/or costs. Each such joint project shall be the subject of a separate written agreement attached as an Annex hereto; and
- F. Such other forms of cooperative activities as may be agreed by the Parties in writing.

**ARTICLE IV
ASSIGNMENT AND EXCHANGE OF PERSONNEL**

Each Party agrees to ensure that, whenever an assignment or exchange of staff is contemplated under this MOU:

- A. Each participating institution will ensure that qualified staff are selected for exchanges or assignments to the host institution;
- B. The participating institutions will prepare assignment agreements as necessary to carry out exchanges or work assignments under this MOU;
- C. Each participating institution will be responsible for the salaries, insurance and allowances to be paid to its staff;
- D. Each participating institution will pay for the travel and living expenses of its staff while on assignment or exchanges unless otherwise agreed to by the Parties;
- E. The host participating institution will identify adequate accommodations for staff of another participating institution (and their families) on a mutually agreeable, reciprocal basis;
- F. The host participating institution will provide all necessary assistance to the staff of another participating institution (and their families) as regards administrative formalities, such as visa applications;
- G. Assigned staff will conform to the general and special rules of work and safety regulations in force at the host participating institution, or as agreed in a separate arrangement;
- H. A participating institution may propose a staff assignment or exchange by notifying the host institution of the name of the person(s) proposed for such assignment or exchange. Each participating institution will provide any information concerning any of such person(s) which is required by the receiving institution; and
- I. The host participating institution will grant assigned staff access to unclassified information to the extent necessary to allow the staff to perform assigned duties.

ARTICLE V
INFORMATION AND INTELLECTUAL PROPERTY

- A. The Parties participating institutions may exchange information necessary to carry out this MOU. All information arising under this MOU will be promptly exchanged between the participating institutions and the Parties. The Parties share the objective of providing adequate and effective protection for intellectual property created or furnished in support of this MOU.
- B. Provisions for the protection and allocation of intellectual property and the treatment of business-confidential information are set forth in Annex I to this MOU, which forms an integral part of this MOU and applies to all activities carried out under this MOU.
- C. Reciprocal security obligations related to the cooperative activities under this MOU shall be observed in accordance with the provisions of Annex II, which forms an integral part of this MOU.

ARTICLE VI
DURATION AND TERMINATION

- A. This MOU shall enter into force upon signature and shall remain in force for a period of five years. This MOU may be amended or extended by written agreement of the Parties. Either Party may terminate this MOU at any time after providing six months written notice to the other Party.
- B. The Parties may agree to continue joint activities which are not completed at time of termination or expiration of this MOU until such activities are completed under the terms and conditions of this MOU.

Done at Washington in duplicate, this , this 14th day
of June 1996.

FOR THE MINISTRY OF
SCIENCE AND TECHNOLOGY OF
THE REPUBLIC OF KOREA:

Kun Mo Chung

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:

Harry J. Gray

ANNEX I - INTELLECTUAL PROPERTY

I. GENERAL

A. For purposes of this Memorandum of Understanding (MOU), "intellectual property" is understood to have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.

B. The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this MOU and relevant implementing arrangements thereunder.

II. COPYRIGHTS

Disposition of rights to copyright protected works created in the course of the cooperative activities under this MOU shall be determined in the relevant implementing arrangements. The parties to the cooperative activities concerned shall take the appropriate steps to secure copyright to works created in the course of cooperative activities under this MOU in accordance with the national laws and regulations of the respective countries.

III. INVENTIONS

A. For the purposes of this Annex, "invention" means any invention made in the course of a program of cooperative activity under this MOU or implementing arrangements thereunder which is or may be patentable or otherwise protectable under the laws of the United States of America, the Republic of Korea, or any third country.

B. Between a Party and its nationals, the ownership of rights and interests in inventions shall be determined in accordance with that Party's national laws, regulations and practices.

C. As to an invention made under this MOU or its implementing arrangements, the parties to the cooperative activity concerned shall take the appropriate steps to secure rights to implement the following:

1. If the invention is made as a result of a program of cooperative activity that involves only the transfer or exchange of information between the parties, such as by joint meetings, seminars, or the exchange of technical reports or papers, unless otherwise provided in an applicable implementing arrangement:

- a. The party whose personnel make the invention ("the Inventing Party") has the right to obtain all rights and interests in the invention in all countries;

b. In any country where the Inventing Party decides not to obtain such rights and interests, the other party has the right to do so.

2. If the invention is made by personnel of one party ("the Assigning Party") while assigned to the other party ("the Receiving Party") in the course of a program of cooperative activity that involves only the visit or exchange of scientific and technical personnel, and:

a. in the case where the Receiving Party is expected to make a major and substantial contribution to the cooperative activity:

i. the Receiving Party has the right to obtain all rights and interests in the invention in all countries; and

ii. in any country where the Receiving Party decides not to obtain such rights and interests, the Assigning Party has the right to do so.

b. in the case where the provision in subparagraph (a) above is not satisfied:

i. the Receiving Party has the right to obtain all rights and interests in the invention in its own country and in third countries,

ii. the Assigning Party has the right to obtain all rights and interests in the invention in its own country; and

iii. in any country where one party decides not to obtain such rights and interests, the other party has the right to do so.

D. Specific arrangements involving other forms of cooperative activities such as joint research projects with an agreed scope of work, shall provide for the mutually agreed upon disposition of rights to an invention made as a result of such activities on an equitable basis.

E. Notwithstanding the foregoing, if an invention is of a type for which exclusive rights are available under the laws of one Party but not of the other Party, the Party whose laws provide for exclusive rights shall be entitled to all rights to such invention in its own territory and in third countries. Persons named as inventors of property shall nonetheless be entitled to a share of royalties earned by either institution from the licensing of the Property. The parties to the cooperative activities may agree, however, to a different allocation of rights to such invention.

F. The Inventing Party shall disclose the invention promptly to the other party together with any documentation and information necessary to enable the other party to establish any right to which it may be entitled. The inventing party may ask the other party in writing to delay publication or public disclosure of such documentation or information for the purpose of protecting its rights related to the invention. Unless otherwise specifically agreed in writing, such restriction shall not exceed a period of six months from the date of such communication. Communication shall be made through the competent government agencies or as otherwise designated in the relevant implementing arrangements.

IV. BUSINESS CONFIDENTIAL INFORMATION

A. For the purpose of this Annex, "business-confidential information" means any know-how, technical data, or technical, commercial, or financial information that meets all of the following conditions:

1. it is of a type customarily and intentionally held in confidence for commercial reasons;
2. it is not generally known or publicly available from their sources;
3. it has not been previously made available by the owner to others without an obligation concerning its confidentiality; and
4. it is not already in the possession of the recipient without an obligation concerning confidentiality.

B. Business-confidential information should be furnished or, when created in the course of cooperative activities under this MOU, transferred by mutual written agreement of the parties to the cooperative activity concerned.

C. All business-confidential information shall be given full protection in accordance with the laws and regulations of the respective countries. Any information to be protected as "business-confidential information" shall be appropriately identified, before it is furnished in the course of cooperative activities or immediately upon being created, by the party furnishing such information or asserting that it is to be protected. Unidentified information will be assumed not to be information to be protected, except that a party to the cooperative activity may notify the other party in writing, within a reasonable period of time after furnishing or transferring such information, that such information should be protected as "business-confidential information".

V. OTHER FORMS OF INTELLECTUAL PROPERTY

"Other forms of intellectual property" means any intellectual property created under this MOU other than inventions or works of authorship and includes, for example, mask works. Rights to other forms of intellectual property shall be determined in the same manner as for inventions, i.e., Article III, paragraph B-D of this Annex. If intellectual property is of a type for which protection is available under the laws of one Party but not of the other Party, the Party whose laws provide for such protection shall be entitled to all rights in such intellectual property in its own territory and in third countries. Persons named as inventors of property shall nonetheless be entitled to a share of royalties earned by either institution from the licensing of the property. The parties to the cooperative activities may, however, agree to a different allocation of rights to such intellectual property.

VI. MISCELLANEOUS

A. Each party to the cooperative activity shall take all necessary and appropriate steps to provide for the cooperation of its authors, inventors, and discoverers which is required to carry out the provisions of this Annex.

B. Each party to the cooperative activity shall assume the responsibility to pay nationals of its country or its personnel such awards or compensation as may be in accordance with the laws and regulations of its country. This Annex does not create any entitlement or prejudice any right or interest of the authors or inventors or discoverers to an award or compensation for their works, inventions or discoveries.

C. Disputes or the intellectual property arising between the parties to a cooperative activity under this MOU shall be resolved through discussions between the parties directly concerned. If disputes cannot be resolved by those parties, they shall be settled through consultations with the Parties.

VII. EFFECT OF TERMINATION OR EXPIRATION

Termination or expiration of this MOU shall not affect rights or obligations under this Annex.

VIII. APPLICABILITY

This Annex shall be applied to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the parties to the cooperative activities.

ANNEX II - SECURITY OBLIGATIONS

I. PROTECTION OF INFORMATION

Both Parties agree that no information or equipment requiring protection in the interests of national defense or foreign relations of either Party and classified in accordance with the applicable national laws and regulations shall be provided under this Memorandum of Understanding (MOU). In the event that information or equipment which is known or believed to require such protection is identified in the course of cooperative activities undertaken pursuant to this MOU, it shall be brought immediately to the attention of the appropriate officials, and the Parties shall consult concerning the need for and level of appropriate protection to be accorded such information or equipment.

II. TECHNOLOGY TRANSFER

The transfer of export-controlled information or equipment between the two countries shall be in accordance with relevant laws and regulations of each Party to prevent the unauthorized transfer or retransfer of such information or equipment provided or produced under this MOU. If either Party deems necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the contracts or implementing arrangements.

ANNEX III - PARTICIPATING INSTITUTIONS

One or more institutions from one Party may carry out cooperative activities with one or more institutions from the other Party as specified under Article IB of this Memorandum Of Understanding. Additional institutions may be added as amendment to this MOU.

I. From the United States:

The Argonne National Laboratory (ANL)
The Brookhaven National Laboratory (BNL)
Oak Ridge National Laboratory (ORNL)
Idaho National Engineering Laboratory (INEL)
Pacific Northwest Laboratory (PNL)

II. From the Republic of Korea:

Korea Atomic Energy Research Institute (KAERI)
Korea Institute of Nuclear Safety (KINS)
Korea Basic Science Institute (KBSI)


**The Secretary of Energy**

Washington, DC 20585

October 20, 2004

ES# 2004-010754**MEMORANDUM FOR THE SECRETARY**

THROUGH: JOSEPH P. MCMONIGLE
CHIEF OF STAFF

FROM: VINCENT DEVITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

SUBJECT: ACTION: Signature of Amendment to Annex V to the Memorandum of Understanding between the Department of Energy and the Ministry of Science and Technology (MOST) of the Republic of Korea for a Cooperative Laboratory Relationship on a Collaborative Project Supporting the International Nuclear Energy Research Initiative (I-NERI) (Tab A)

ISSUE: To seek approval for Acting Assistant Secretary Vincent DeVito or his delegate to sign the Amendment to Annex V of the Memorandum of Understanding between DOE and MOST.

BACKGROUND: DOE established the I-NERI in FY2001 as a mechanism for coordinating international R&D on next-generation nuclear energy systems known as Generation IV. In addition to the Republic of Korea, DOE has bilateral I-NERI agreements with counterparts in France and Canada.

Annex V to the 1996 Memorandum of Understanding between DOE and MOST establishes terms for a bilateral collaboration project on R&D focused on advanced technologies for improving the cost, safety, and proliferation-resistance of nuclear energy systems. (Tab B) The Amendment expands the subject areas of collaboration for joint R&D activities under Annex V, revises Annex V's management structure, and corrects the reference to the governing intellectual property rights provisions

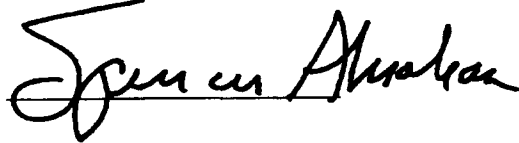
POLICY IMPACT: None

SENSITIVITIES: None

RECOMMENDATION: The Secretary authorize the Acting Assistant Secretary of Policy and International Affairs or his delegate to sign the Amendment to Annex V.

CONTACT: Keena Hillary, Office of International Science and Technology Cooperation (PI-31), x 6-8156.

APPROVE:



DISAPPROVE: _____

DATE: 10/26/04

Attachments:

Tab A: Amendment to Annex V of DOE-MOST
Memorandum of Understanding

Tab B: Annex V of DOE -MOST Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

BETWEEN

**THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA**

AND

**THE MINISTRY OF OIL
OF THE REPUBLIC OF IRAQ**

FOR

**COOPERATION ON ENERGY ANALYSIS, SCIENCE AND
TECHNOLOGY, AND ENERGY TECHNOLOGY DEMONSTRATION**

The Department of Energy of the United States of America and the Ministry of Oil of the Republic of Iraq, hereinafter referred to as the "Participants":

Having an interest in establishing cooperation in the areas of energy analysis, science and technology, and energy technology demonstration;

Having a mutual interest in exchanging experience and views on opportunities for the utilization of energy technologies and in fostering collaboration between the two countries in these areas, particularly through training, educational and capacity building activities;

Recognizing that energy security and the quality of life can be enhanced through effective and environmentally sound utilization of energy sources; and

Further recognizing that cooperation in the areas of energy analysis, science, technology, and energy technology demonstration would promote increased economic interaction, facilitate energy technology transfer, accelerate the commercialization of energy systems and products, and expand opportunities for international trade between the United States and Iraq;

Have reached the following understandings:

ARTICLE I

- A. Under this Memorandum of Understanding (MOU), the Participants seek to facilitate appropriate joint activities relating to energy analysis, science and technology, and energy

technology demonstration in areas of mutual interest, including, but not limited to, the following:

1. Fossil energy, including training on technical capacity, geological and geophysical needs, enhanced oil recovery, and physical investment;
2. Environmental issues associated with energy transportation, production and transportation, including oil spill management and operational and safety standards;
3. Energy information, including collection, analysis, and forecasting;
4. Such other areas as may be mutually determined by the Participants.

ARTICLE II

A. The forms of cooperation in the areas specified in Article I of this MOU may include the following:

1. Exchanging energy experts, specialists and scientists to participate in cooperative activities;
2. Organizing and participating in seminars, workshops and conferences on specific mutually agreed topics;
3. Exchanging information on the development and utilization of energy technologies that are economically sound and protect the environment;
4. Sharing relevant non-proprietary information and practical experience in energy fields;
5. Assisting Iraq in capacity development through training, joint government-industry activities, faculty and student exchanges and tours, and exploration of ways to promote transfer of skills and technology to support human resources development, and institutional infrastructure;
6. Such other forms of cooperation within the scope of this MOU as the Participants may mutually determine.

ARTICLE III

- A. The Participants intend to establish the United States-Iraqi Consultative Mechanism to promote energy analysis consultations, energy technology demonstration, and energy training and education with a focus on capacity building in Iraq.
- B. The Consultative Mechanism is to consist of representatives designated by the Participants. As mutually determined, the Participants may include representatives, from other organizations, as appropriate based on the agenda of their consultations.

- C. Each Participant should appoint an official contact to prepare for the consultations and energy training and to be responsible for communication between the Participants.
- D. In view of the significant distance between the two countries, electronic and telephonic communications are the preferred modes of interaction.
- E. Meetings of the Consultative Mechanism and of the Participants' selected representatives may be held at such times and places as jointly determined by the Participants.

ARTICLE IV

Each Participant intends to facilitate, through coordination with the appropriate competent authorities in its respective country, the granting of visas and other forms of official permission for entry into and exit from its country of personnel of the other country engaged in cooperative activities under this MOU.

ARTICLE V

- A. Each Participant is to conduct the activities provided for under this MOU in accordance with the applicable laws and regulations of its respective country. Each Participant is responsible for the costs of its own activities under this MOU, unless the Participants otherwise agree in writing.
- B. It is understood that this MOU does not create any legally binding obligations between the Participants.
- C. Implementation of this MOU may begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants. If either Participant wishes to end its cooperation under this MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:

FOR THE MINISTRY OF OIL
THE REPUBLIC OF IRAQ: .

Date:

Date:

**Department of Energy**

Washington, DC 20585

December 16, 2004

ES# 2004-012376**MEMORANDUM FOR THE SECRETARY****FROM:**

VINCENT DE VITO 
ACTING ASSISTANT SECRETARY
OFFICE OF POLICY AND INTERNATIONAL AFFAIRS

THROUGH:

JOSEPH P. MCMONIGLE
CHIEF OF STAFF

SUBJECT:

ACTION: Approve and grant authority to sign the "Memorandum of Understanding (MOU) between the Department of Energy of the United States of America and the Ministry of Oil of the Republic of Iraq for Cooperation on Energy Analysis, Science and Technology, and Energy Technology Demonstration".

ISSUE:

To seek the Secretary's approval for signature of the attached MOU with the Iraqi Ministry of Oil (Tab A).

DISCUSSION:

The interim Government of Iraq has requested the Department of Energy to provide technical training for its oil-related infrastructure and to assist in the creation of energy databases to analyze its energy sector. DOE's Office of Fossil Energy and the Energy Information Administration are prepared to assist the Iraqi Ministry with these issues.

On December 20-21, the State Department will host the second U.S.-Iraq Joint Economic Committee (JEC). Although there are many items on the agenda, the State Department views energy issues as particularly urgent. Major issues include: the future shape of the legal/regulatory framework, training opportunities for the Ministry of Oil, and energy revenues and budget.

In addition to this MOU, the Department of State is working on three to four other agreements, which will be signed during a ceremony with representatives from Iraq on Tuesday December 21 in the Treaty Office of the State Department. It is requested that the senior DOE representative at the U.S. - Iraq JEC, who has yet to be determined, will sign the MOU. In the Secretary's absence and if the Deputy Secretary is unavailable, approval is requested for a senior representative from the Office of Policy and



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International Affairs to sign the MOU. There will be high-level press coverage of the events.

POLICY IMPACT:

The President has committed the United States Government to assist Iraq as it develops its own energy policies and procedures. The MOU makes possible DOE efforts to meet the President's commitment. In addition, the joint cooperation under this MOU would encourage U.S. private sector investment in the Iraqi energy market by demonstrating a U.S. Government commitment to assist the Iraqi energy sector during a time of transition. The cooperation would promote the security of energy supplies to global markets.

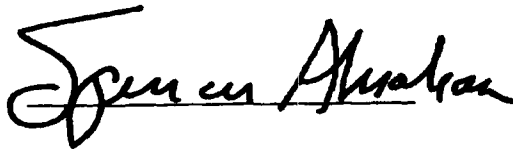
SENSITIVITIES:

Time is of the essence, signature of the MOU is scheduled for December 21.

RECOMMENDATION:

Approve the MOU and authorize signature by either the Deputy Secretary or a senior representative from the Office of Policy and International Affairs.

APPROVED:



DISAPPROVED:

DATE:

December 20, 2004

Attachments:

Tab A:

DOE/Iraqi Ministry of Oil MOU

Coordination:

Concurrences by PI, EIA, FE, GC

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE INTERNATIONAL ATOMIC ENERGY AGENCY
AND
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
CONCERNING
SUPPLY OF FEED MATERIAL FP-33
FOR
SEPARATION OF HIGH-PURITY PLUTONIUM-244

This Memorandum of Understanding (hereinafter referred to as "MOU") is made between the International Atomic Energy Agency (hereinafter referred to as the "IAEA") and the Department of Energy of the United States of America (hereinafter referred to as "USDOE"), collectively hereinafter the "Parties".

NOTING the Agreement for Cooperation between the United States of America and the International Atomic Energy Agency of May 11, 1959, which entered into force August 7, 1959, as amended and extended;

NOTING the IAEA's desire to obtain, and USDOE's willingness to supply, small quantities of highly-enriched plutonium-244 for use by the IAEA as an isotopic tracer in nuclear safeguards applications; and

NOTING that the IAEA has entered into a contract (2000-827) with the All Russian Scientific Research Institute for Experimental Physics (hereinafter referred to as "VNIIEF") to produce highly-enriched plutonium isotopes from USDOE-supplied plutonium feed material as specified in Table 1 of the Annex attached to this MOU;

NOW THEREFORE, the Parties hereby agree as follows:

Article 1

Objective of the MOU

- (a) The purpose of this MOU is to establish an understanding between the IAEA and USDOE, through its National Nuclear Security Administration ("NNSA"), concerning the following, with the objective of USDOE providing the IAEA isotopically enriched plutonium-244 for use by the IAEA and its Network of Analytical Laboratories in nuclear safeguards forensic activities:
 - 1) USDOE's supply of a quantity (as described in Article 2) of FP-33 plutonium feed material (hereinafter referred to as "FP-33") to the IAEA and its transfer to VNIIEF;
 - 2) VNIIEF's performance of a test separation on a portion of the FP-33 and verification of separation efficiency and yield;
 - 3) VNIIEF's separation of the bulk FP-33 to produce Primary Products 1 and 2 and Secondary Products (as set forth in the Annex attached to this MOU), and the transfer of these products to USDOE;
 - 4) USDOE's production and certification of reference materials from Primary Products 1 and 2;

- 5) USDOE's provision of a portion of the Certified Reference Materials ("CRMs") produced from Primary Products 1 and 2 to the IAEA for its own use and for distribution to Network of Analytical Laboratories members; and
 - 6) Disposition of the Secondary Products pursuant to agreement between USDOE and VNIIEF.
- (b) Any information transferred by USDOE under this MOU will be limited to information in the public domain.
 - (c) The material supplied by USDOE, and products derived therefrom, are and will remain the property of the United States Government.

Article 2

Undertakings of USDOE

Subject to the provision for secure storage of Secondary Product materials at VNIIEF under IAEA seal and to the conclusion of an appropriate agreement between USDOE and VNIIEF setting forth the terms and conditions for the transfer of Secondary Product materials to USDOE, USDOE shall:

- (a) Supply one portion of FP-33 containing 0.5g of plutonium dioxide (test portion) to the IAEA for transmittal to VNIIEF, on the condition of successful completion of the International Science and Technology Center ("ISTC") Project 1318, as evaluated by the Steering Committee established by Article 4 of this MOU;
- (b) Supply one portion of FP-33 containing 4.5g of plutonium dioxide (production portion) to the IAEA for transmittal to VNIIEF on the condition of VNIIEF's successful separation of the 0.5g test portion as confirmed from isotopic analyses performed by the USDOE's New Brunswick Laboratory (USDOE-NBL) and other laboratories as designated by the Steering Committee;
- (c) At its own expense ship separately the test portion and the production portion of FP-33 to the IAEA in an approved shipping container provided by USDOE or the IAEA;
- (d) At its own expense, and in connection with the contract (2000-827) between the IAEA and VNIIEF, provide U.S. expert(s) to take part in witnessing the measurement and sub-sampling of the product solutions and/or solids at the VNIIEF facility;
- (e) Provide management oversight and expert measurement in the certification of FP-33-derived spike materials using facilities at USDOE-NBL;
- (f) Following production and certification of CRMs from Primary Products 1 and 2 as described in Table 2 of the Annex to, and Article 6 of, this MOU by USDOE-NBL,

provide to the IAEA sixty percent of the remaining units of CRMs; and

- (g) Arrange with VNIIEF for the final disposition of the Secondary Products of isotopic separation.

Article 3 Undertakings of the IAEA

The IAEA shall:

- (a) Convene and chair meetings of the Steering Committee, established as provided in Article 4 of this MOU;
- (b) Provide a Secretariat for the Steering Committee at IAEA headquarters in Vienna;
- (c) At its own expense ship separately the test portion and production portion of the FP-33 to VNIIEF, using an approved shipping container supplied by the IAEA, on approval of the Steering Committee;
- (d) Provide oversight and monitoring, under the IAEA-VNIIEF Contract 2000-827, of VNIIEF's separation of the FP-33 feed materials into specified Primary and Secondary Products, and oversight of the Primary and Secondary Products during processing, storage, and shipping;
- (e) Designate, with approval of the Steering Committee, qualified laboratories to verify the CRMs converted from part of the Primary Products 1 and 2 as defined in Article 6 and Table 2 of the Annex to this MOU;
- (f) Arrange for IAEA and USDOE experts to be sent to witness the measurement and sub-sampling of the productions at the VNIIEF facilities; and
- (g) Arrange for the shipping of Primary Products 1 and 2 to USDOE-NBL and for the secure storage of Secondary Products under IAEA seal at VNIIEF, as provided in Articles 5 and 6 of this MOU.
- (h) Ensure, to the full extent of the IAEA's statutory powers, that the FP-33 provided by the United States shall not be used for nuclear weapons or any other nuclear explosive device, for research on or for development of any nuclear explosive device, or for any other military purpose.

Article 4
Establishment and Functions of the Steering Committee

- (a) A Steering Committee shall be established, to provide oversight and management of the activities conducted under this MOU.
- (b) The functions of the Steering Committee are to:
 - 1) Monitor progress of ISTC Project 1318 concerning the "Production of Pu-244"; evaluate the success or failure of the ISTC Project, based in whole or in part on reports from Project 1318 review teams; monitor progress and evaluate any other related project with similar goals; advise USDOE and the IAEA in writing when it is appropriate for USDOE to send a test portion of FP-33 to the IAEA for shipment by the IAEA to VNIIEF;
 - 2) Evaluate the verification measurements of isotope ratios obtained by mass spectrometry of a test separation by VNIIEF on a 0.5 g test portion of the FP-33, and evaluate relevant chemical and isotopic data, provided by VNIIEF from the separation work, for the purpose of assessing the separation efficiency;
 - 3) Determine whether separation of the FP-33 (test portion) is successful, and whether it is appropriate for USDOE to send the FP-33 (production portion) to the IAEA for shipment by the IAEA to VNIIEF;
 - 4) Monitor progress of the separation work at VNIIEF under the IAEA-VNIIEF contract cited in Article 3(e), through review of reports and other documentation and analytical verification;
 - 5) Provide recommendations to the IAEA and USDOE regarding the use of portions of the Primary Products to produce CRMs and the disposition of Secondary Products;
 - 6) Provide recommendations for the disposition of the remaining portions of Primary and Secondary Products in accordance with Article 5 of this MOU; and
 - 7) Recommend plans for the distribution and use of CRMs provided to the IAEA from Primary Products 1 and 2 in accordance with Article 6 of this MOU.
- (c) The Steering Committee will be composed of:
 - 1) One representative from the IAEA - Department of Safeguards, who will chair Steering Committee meetings and who shall be a voting member;
 - 2) One representative from the IAEA Safeguards Analytical Laboratory, who shall be a voting member;

- 3) One representative from the USDOE-NNSA, who shall be an international safeguards expert and shall be a voting member;
 - 4) One representative from USDOE-NBL, who shall be a domestic safeguards and metrology expert and shall be a voting member;
 - 5) One representative from VNIIEF, who shall be a non-voting observer;
 - 6) One representative from the Institute for Reference Materials and Measurements, Geel, Belgium, who shall be a non-voting observer.
- (d) Decisions of the Steering Committee shall be taken by consensus of the voting members.
- (e) Meetings of the Steering Committee shall take place at least once a year at the IAEA headquarters in Vienna. Participants will be responsible for the cost of their travel to and participation in the meetings.

Article 5

Disposition of the Remaining Primary and Secondary Products

- (a) The Primary Products are to be produced into CRMs as listed in Table 2 of the Annex to this MOU. CRMs will be distributed as provided in Article 6 of this MOU. The remaining Primary Products not produced into CRMs shall be stored at USDOE-NBL.
- (b) Further production of CRMs from the remaining Primary Products shall be subject to approval by USDOE-NBL in consultation with the Steering Committee.
- (c) DOE's provision of FP-33 as contemplated by this MOU is subject to the receipt of assurances by the Government of the Russian Federation, satisfactory to the United States Government, that the Secondary Products from the electromagnetic separators at VNIIEF shall be stored at VNIIEF under secure conditions and under IAEA seal, to ensure the integrity of the material. The final disposition of the Secondary Products shall be subject to arrangements between USDOE and VNIIEF.

Article 6

Disposition and Use of CRMs Produced from Primary Products 1 and 2

- (a) CRMs to be produced from Primary Products 1 and 2 are listed in Table 2 of the Annex to this MOU.
- (b) The IAEA will be provided with a quantity of CRMs as described in Article 2(f) of this

MOU for its own use and for distribution to the Network of Analytical Laboratories members following recommendations of the Steering Committee.

- (c) Primary Products 1 and 2 will each be apportioned into individual aliquots for certification and distribution by USDOE-NBL following specifications listed in Table 2 of the Annex to this MOU. The bulk materials will be split into individual units for use in certification measurements and for use as CRMs. To obtain certified values, the analysis of a statistically-determined number of these units is required. A portion of the total number of units of each product will be used by USDOE-NBL and laboratories designated by the Steering Committee for verification measurements to certify the material. Sixty percent of the remaining CRM units prepared from the Primary Products will be allocated to the IAEA for its own use and for distribution to Network of Analytical Laboratories members based on recommendations from the Steering Committee. The remaining units of each product will be retained by USDOE-NBL for safeguards and metrology applications.

Article 7 Funding

The obligations of USDOE under this MOU are subject to the availability of appropriated funds.

Article 8 Annex

The Annex referred to and appended to this MOU constitutes an integral part of the MOU.

Article 9 Points of Contact

The Parties' points of contact for implementation of this MOU shall be representatives of the IAEA, USDOE-NNSA, and USDOE-NBL. All communications among the points of contact shall be made or confirmed in writing in English.

Article 10 Settlement of Disputes

Any dispute concerning the interpretation or application of this MOU shall be resolved by consultations between the Parties.

Article 11
Entry into Force, Duration and Extension

This MOU shall enter into force upon signature by both Parties, and (subject to Article 13) shall remain in force for 5 years. The Parties may extend this MOU for additional periods, by mutual agreement in writing.

Article 12
Amendment

This MOU may be amended by written agreement of the Parties.

Article 13
Termination

Either Party may terminate this MOU by giving 6 months' written notice to the other Party.

FOR THE INTERNATIONAL ATOMIC
ENERGY AGENCY:

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:

Date:

Date:

Place:

Place:

ANNEX

TABLE 1. Specifications of the Primary and Secondary Products of the Separation

(1) First Pass Feed and Products - Abundances in Atomic Percent

Isotope	Feed (FP-33) 1 June 2003	Secondary Product #1 Pu-239	Secondary Product #2 Pu-240	Secondary Product #3 Pu-241	Secondary Product #4 Pu-242	Primary Product #1 Pu-244
Pu-238	0.19	76.03 ^f	99.15 ^a	82.93 ^f	99.74 ^a	0.000
Pu-239	2.19					0.007
Pu-240	33.03					0.187
Pu-241	1.18					0.020
Pu-242	45.95					0.228
Pu-244	17.46					99.5 ^b
Total Amount (mg)	4400	12	188	13	260	100 ^c + (x)*

* Additional Primary Product #1 is needed as feed material for the second pass enrichment.

(2) Second Pass Feed and Product - Abundances in Atomic Percent

Isotope	Feed					Primary Product #2 Pu-244
Pu-238	0.000					0.000
Pu-239	0.007					0.000
Pu-240	0.187					0.001
Pu-241	0.020					0.000
Pu-242	0.228					0.004
Pu-244	99.558					99.99 ^d
Total Amount (mg)	(x)*					1 ^e

Notes:

- The acceptance range of the abundance is $\pm 1.0\%$ (absolute).
- The acceptance range of the abundance is $\pm 0.2\%$ (absolute).
- The acceptance range of the amount is ± 5 mg (absolute).
- The acceptance range of the abundance is $\pm 0.02\%$ (absolute).
- The acceptance range of the amount is ± 0.05 mg (absolute).
- The acceptance range of the abundance is $\pm 10\%$ (absolute).

Table 2. Certified Reference Materials produced from Primary Products 1 and 2.

Material	Goal Accuracy	Use	Chem. Form	Pu Conc. in microgram/mL	Unit Size (mL)	Number of Units	Amount Used (mg)
99.6% ²⁴⁴ Pu (Spikes)	0.03% (note 1)	IDMS total evap.	Nitrate	5	10	500	25 (²⁴⁴ Pu)
²⁴² Pu/ ²⁴⁴ Pu Spikes	0.03% (note 1)	IDMS Internal corr.	Nitrate	5	10	1000	25 (²⁴⁴ Pu)
99.99 ²⁴⁴ Pu Spikes	0.0001 (note 2)	Environ. Samples	Nitrate	0.1	10	500	0.5 (²⁴⁴ Pu)

Note 1: Accuracy of major isotope ratios.

Note 2: Sensitivity of minor isotope abundance.



The Secretary of Energy
Washington, DC 20585

March 3, 2005

MEMORANDUM FOR LINTON F. BROOKS, ADMINISTRATOR
NATIONAL NUCLEAR SECURITY
ADMINISTRATION

FROM:

SAMUEL W. BODMAN

A handwritten signature in black ink, reading "Samuel W. Bodman".

SUBJECT:

Delegation of Signature Authority

This memorandum authorizes you or your designee to sign the Memorandum of Understanding Between the International Atomic Energy Agency and the Department of Energy of the United States of America Concerning Supply of Feed Material FP-33 for Separation of High-Purity Plutonium-244.

cc: Paul Longsworth, NA-20



Printed on recycled paper

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF FOREIGN AFFAIRS AND
INTERNATIONAL TRADE CANADA
AND
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
ON PARTICIPATION IN THE
ELIMINATION OF WEAPONS GRADE PLUTONIUM PRODUCTION PROGRAM

The Department of Foreign Affairs and International Trade (DFAIT) and the Department of Energy of the United States of America (DOE) hereinafter referred to as the "Participants",

SEEKING to promote the non-proliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968 (the "NPT"),

GUIDED by the mutual desire to cooperate with each other to support the permanent shutdown of the Soviet-era ADE graphite-moderated reactor at Zheleznogorsk in the Russian Federation ("Zheleznogorsk reactor") that is currently producing plutonium, as provided for in the Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning Cooperation Regarding Plutonium Production Reactors of September 23, 1997, as amended on March 12, 2003, (the "PPRA Agreement"), and which also falls under the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

HAVE REACHED THE FOLLOWING UNDERSTANDING:

1.0 OBJECTIVE

- 1.1 The objective of this Memorandum of Understanding ("MOU") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation projects, initially in the Russian Federation, to address non-proliferation, disarmament, counter-terrorism and nuclear safety issues, including the elimination of weapons grade plutonium production in the Russian Federation.

- 1.2 The Participants recognize that the remaining three plutonium production reactors in the Russian Federation constitute a non-proliferation threat, and, in furtherance of their Global Partnership commitments, intend to cooperate pursuant to this MOU to achieve the permanent and timely shutdown of one of those reactors, the Zheleznogorsk reactor, through the construction of a fossil fuel energy replacement capacity as provided in the PPRA Agreement.

2.0 PROJECT SCOPE

- 2.1 DOE, for the Government of the United States of America, is providing Assistance to the Russian Federation through DOE's Elimination of Weapons Grade Plutonium Program (the "EWGPP") to construct fossil fuel energy replacement capacity at Zheleznogorsk so that the Zheleznogorsk reactor can be shut down.
- 2.2 DFAIT wishes to make a financial contribution (the "Contribution") in the amount of nine million Canadian dollars that DOE intends to utilize for design work for the Zheleznogorsk Heat and Power Plant. This includes costs for schedule management and reporting, engineering technical support and costs related to drawings and other design documentation for the boiler house, including its systems for sewage, potable water, automated control and electrical supply; the fly-ash removal building; slag and ash removal equipment; the fuel handling system; communications equipment; fire-fighting equipment and systems; and heating and ventilation equipment.
- 2.3 It is understood that DOE does not intend to use the contribution to defray any social infrastructure costs (e.g., employee housing facilities) that are not directly related to the activities described in Paragraph 2.2.

3.0 FINANCIAL ARRANGEMENTS & REPORTING

- 3.1 DFAIT intends to transmit the Contribution in one lump sum to the U.S. Department of the Treasury to be deposited with the Federal Reserve Bank of New York for use by DOE. DOE intends to use this Contribution solely for the activities described in Paragraph 2.2.
- 3.2 In the event any portion of the Contribution provided by DFAIT under this MOU is not utilized within five years of its receipt by the United States Government, DOE intends to return to DFAIT the unused portion of said Contribution.
- 3.3 The Contribution made hereunder is not for the consideration of a supply or service to DFAIT and as such, the Canadian Goods and Services Tax does not apply to the Contribution made under this MOU.

- 3.4 The Participants understand that the maximum Contribution payable under this MOU is nine million Canadian dollars.
- 3.5 DOE intends to keep accounts and records of the costs of the activities described in Paragraph 2.2, including all expenditures or commitments, and intends to comply with its relevant regulations and with generally accepted accounting principles including those related to audits.
- 3.6 DOE intends to provide to DFAIT copies of the Zheleznogorsk Plutonium Production Elimination Project (ZPPEP) Monthly Progress Report that are relevant to activities described in Paragraph 2.2 until the Contribution has been fully disbursed. In addition, DOE intends to provide to DFAIT an annual summary report of the ZPPEP until the end of the ZPPEP.
- 3.7 DOE intends to allow, with reasonable notice, DFAIT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the activities described in Paragraph 2.2, for a period of three years after disbursement is completed as described in Paragraph 9.2 of this MOU. DFAIT understands that DOE may redact from its audits any information that DOE may be required to protect under U.S. law.
- 3.8 The Participants understand that any information or documents exchanged, with the exception of public announcements as described in Paragraph 5.0, should be disclosed only upon the written consent of the other Participant and should be protected by each Participant to the fullest extent allowed by its law.

4.0 MANAGEMENT

To manage their cooperation under this MOU, the Participants intend to establish a Committee for the Safe Shutdown of the Operating Plutonium Producing Reactor at Zheleznogorsk (the "Committee"), comprised of an equal number of representatives of each Participant. This Committee should convene periodically at a frequency and location as deemed desirable by the Participants to review progress of the activities described in Paragraph 2.2, and to review the reports provided by DOE as described in Paragraph 3.6.

5.0 PUBLIC ANNOUNCEMENTS

- 5.1 Where appropriate, and upon consultation, the Participants intend to acknowledge the Contribution in publications, speeches, press releases or other similar media.
- 5.2 The Participants intend, upon consultation and mutual consent, to issue public announcements concerning the Contribution in their respective official languages.

6.0 CONFLICT OF INTEREST

No public office holder of Canada may derive a benefit from this MOU.

7.0 SOURCE OF FUNDS

DOE intends to inform DFAIT of all amounts of funds from other donors for the activities described in Paragraph 2.2. Should the amounts of these funds change, DOE intends to promptly advise DFAIT.

8.0 POINTS OF CONTACT

For purposes of facilitating communication under this MOU, DFAIT hereby designates:

Senior Program Manager
(Nuclear and Radiological Security)
Global Partnership Program (GPX)
Foreign Affairs Canada (DFAIT)
125 Sussex Drive
Ottawa, Ontario K1A 0G2

as its point of contact.

For the same purposes DOE designates:

ZPPEP Federal Project Manager
National Nuclear Security Administration
Elimination of Weapons Grade Plutonium Production (NA 23)
1000 Independence Avenue, S.W.
Washington D.C. 20585

as its point of contact.

9.0 ENTRY INTO OPERATION, DURATION, MODIFICATION, AND INTERPRETATION

9.1 Cooperation under this MOU is expected to commence on the date of the latter signature by a Participant.

9.2 The Participants do not intend this MOU to continue in operation after disbursement by DOE of the Contribution for the activities described in Paragraph 2.2 is completed. DOE intends to inform DFAIT in writing of the date on which such disbursement is completed. Notwithstanding what precedes, DOE intends to

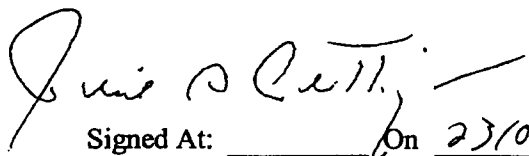
provide to DFAIT any relevant project reports as described in Paragraph 3.6, and access to audits as described in Paragraph 3.7.

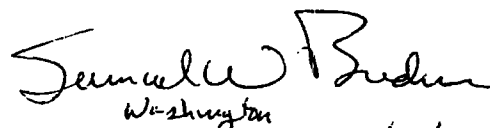
- 9.3 This MOU may be modified by the Participants jointly in writing.
- 9.4 The Participants do not intend this MOU, or any provision thereof, to create any binding obligations under international law.

Signed in duplicate in the English and French languages.

FOR THE DEPARTMENT OF FOREIGN
AFFAIRS AND INTERNATIONAL
TRADE

FOR THE DEPARTMENT OF
ENERGY


Signed At: _____ On 23/03/05
Date

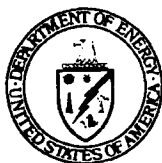

Signed At: DC On 3/24/05
Date

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE AMERICAN INSTITUTE IN TAIWAN
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America agrees to act as the Designated Representative for the American Institute in Taiwan (AIT) and to assume all the responsibilities of the Designated Representative for AIT under the Memorandum of Understanding between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Concerning Cooperation to Prevent the Illicit Trafficking in Nuclear and Other Radioactive Material, dated _____, 2005.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE AMERICAN INSTITUTE
IN TAIWAN:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

November 15, 2005

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

LINTON BROOKS
ADMINISTRATOR

SUBJECT:

ACTION: Signature of Memorandum of Understanding between the Department of Energy of the United States of America and the American Institute in Taiwan Concerning Cooperation to Prevent Illicit Trafficking in Nuclear and Other Radioactive Material (Tab A).

ISSUE:

To seek the Secretary's approval for Linton Brooks or his delegate to sign the Memorandum.

DISCUSSION:

In the Taiwan Relations Act of 1979, Congress created the American Institute in Taiwan (AIT) as a non-profit corporation to carry out programs, transactions, and other relations of any agency of the United States Government with the governing authorities of Taiwan. Such a structure is necessary due to the absence of U.S. diplomatic relations with Taiwan. Taiwan has established a counterpart to AIT in the United States, the Taipei Economic and Cultural Representative Office (TECRO).

Under the Memorandum, AIT will act as DOE's representative, and TECRO will act as the Taiwanese Customs Authority's representative, for cooperation to prevent illicit trafficking in nuclear and other radioactive material at selected Taiwan seaports, under NNSA's Megaports Initiative. NNSA's technical assistance, which is set forth in a Memorandum of Understanding to be signed by AIT and TECRO (Tab B), will include the deployment of radiation detection equipment and related communications equipment, and training of Taiwanese personnel, to provide Taiwan's authorities with the technical means to detect, deter, and where necessary, interdict, nuclear smuggling and illicit trafficking in other radioactive materials, including those suitable for use in radiological dispersal devices ("dirty bombs").



SENSITIVITIES: None

POLICY IMPACT: None

CONTACT: David Huizenga, Assistant Deputy Administrator for
International Material Protection and Cooperation
X6-0368

RECOMMENDATION: That you approve signature of the Memorandum by Linton
Brooks or his delegate.

APPROVE:



DISAPPROVE: _____

DATE: November 28, 2005

CONCURRENCE: General Counsel D.Hill 11/8/05

Attachments:

Tab A: Proposed DOE-AIT Memorandum

Tab B: Proposed AIT-TECRO Memorandum

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF TRANSPORT OF THE STATE OF ISRAEL
CONCERNING
COOPERATION TO PREVENT THE ILLICIT TRAFFICKING IN NUCLEAR
AND OTHER RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America (DOE) and the Ministry of Transport of the State of Israel (IMOT), hereinafter referred to collectively as the "Participants";

Recognizing the high volume of trade between the Port of Haifa and seaports in the United States of America, and Israel's role as an intermodal transport hub for cargo originating in many countries;

Being convinced of a need to detect, deter, and where necessary, to interdict illicit trafficking in nuclear and other radioactive material, including terrorist attempts to disrupt global trade through or from Israel's ports or to attempt to make use of commercial shipping to further terrorist schemes;

Intending their cooperation to serve as a pilot for the Government of the State of Israel to evaluate, for its research and development objectives, the functioning and detection capabilities of DOE-provided equipment; and

Noting the U.S. Container Secretary Initiative, which is designed to safeguard global maritime trade by enhancing cooperation at seaports worldwide to identify and examine high-risk containers and ensure their in-transit integrity,

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the IMOT technical assistance in the form of equipment and materials, as well as training and services, for use at the Port of Haifa and other seaports in Israel as mutually determined by the Participants, for the purpose of detecting and interdicting illicit trafficking of both incoming and outgoing special nuclear

material and other radioactive material. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

2. DOE's technical assistance may include:
 - a. delivery and installation at the Port of Haifa and at other seaports in Israel as the Participants mutually determine of equipment and devices adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment and devices);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain equipment and devices;
 - c. training of appropriate Israeli personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - d. additional areas of cooperation of mutual interest to DOE and IMOT.
3. Upon reasonable request by DOE, and subject to advance coordination with IMOT, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum of Understanding (MOU) for a period of three years starting from the deployment date of the equipment.
4. DOE and IMOT or their implementing agents may also conduct technical workshops, consultations, site surveys, joint verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
5. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and IMOT or their designated implementing agents.
6. The IMOT should endeavor to ensure that the equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Israel.

II. PROVISION OF INFORMATION

IMOT should furnish the Government of the United States of America, through its U.S. Embassy staff representatives (to be designated by DOE) present in Israel and in a format and according to a schedule and other terms and conditions to be determined by the Participants, with data on detections or seizures of special nuclear material and unauthorized export or import of other radioactive material made as a result of the use of the equipment and materials supplied under the MOU.

III. NON-TRANSFER OF EQUIPMENT, NON-DISCLOSURE

1. Information obtained by either Participant's Government as a result of the technical assessment and implementation of cooperation under this MOU should not be disclosed to a third government or other third party without the prior consent of the other Participant. Transfer of information by either Participant's Government, as required under international agreements to which such Government is a party is not regarded as such disclosure to third governments or third parties. The fact of any such transfer of information to a third government or other third party should be promptly notified to the other Participant in writing.
2. Unless the written consent of the DOE has first been obtained, the IMOT should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than to other ministries, bureaus, agencies or departments within the Government of the State of Israel.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided by the DOE under this MOU.

V. GENERAL PROVISION

The MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and applicable international agreements to which the Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU is expected to begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days advance written notice to the other Participant.

Signed at this seventh day of December, 2005, in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF TRANSPORT
OF THE STATE OF ISRAEL:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

November 30, 2005

2005-012514
OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM: LINTON F. BROOKS
ADMINISTRATOR

SUBJECT: **ACTION:** Signature of Memorandum of Understanding between the Department of Energy (DOE) of the United States of America and the Ministry of Transport of the State of Israel Concerning Cooperation to Prevent the Illicit Trafficking in Nuclear and Other Radioactive Material (Tab A).

ISSUE: To seek your approval for Linton Brooks or his delegate to sign the Memorandum of Understanding (MOU), to implement National Nuclear Security Administration's (NNSA) Megaports Initiative in Israel.

BACKGROUND: The mission of the Office of International Material Protection and Cooperation's Megaports Initiative is to deploy radiation detection equipment at foreign seaports in order to provide recipient host governments the technical means to detect, deter, and interdict illicit trafficking in nuclear and other radioactive materials.

Under the MOU, NNSA plans to install radiation detection equipment at the Port of Haifa, and other Israeli seaports as the parties jointly determine, and to train Israeli customs personnel in the use of that equipment, to enhance the capacity of Israeli law enforcement to prevent nuclear terrorism.

SENSITIVITIES: The Israeli Government has requested that the MOU be signed on December 7 in Haifa. Ambassador Brooks will be in Israel and can sign the MOU on behalf of DOE.

POLICY IMPACT: None



CONTACT:

David Huizenga, Assistant Deputy Administrator for
International Material Protection and Cooperation,
x 6-0368

RECOMMENDATION: That you authorize me or my delegate to sign the MOU.

APPROVE:

Samuel W. Buchanan

DISAPPROVE:

DATE:

December 6, 2005

cc: Deputy Secretary

Tab A: Proposed Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF FOREIGN AFFAIRS AND TRADE OF
THE REPUBLIC OF KOREA
ON PARTICIPATION IN THE
ELIMINATION OF WEAPONS GRADE PLUTONIUM PRODUCTION PROGRAM

The Department of Energy of the United States of America (DOE) and the Ministry of Foreign Affairs and Trade of the Republic of Korea (MOFAT), hereinafter referred to as the "Participants",

SEEKING to promote the non-proliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968 (the "NPT"), and

GUIDED by the mutual desire to cooperate with each other to support the permanent shutdown on the Soviet-era ADE graphite-moderated reactor at Zheleznogorsk in the Russian Federation ("Zheleznogorsk reactor") that is currently producing plutonium, as provided for in the Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning Cooperation Regarding Plutonium Production Reactors of September 23, 1997, as amended (the "PPRA"), which project relates to the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

HAVE REACHED THE FOLLOWING UNDERSTANDING:

I – OBJECTIVE

1. The objective of this Memorandum of Understanding ("MOU") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation projects, initially in the Russian Federation, to address non-proliferation, disarmament, counter-terrorism and nuclear safety issues, including the elimination of weapons grade plutonium production in the Russian Federation.

2. The Participants recognize that the remaining three plutonium production reactors in the Russian Federation constitute a non-proliferation threat, and, in furtherance of their Global Partnership commitments, intend to cooperate pursuant to this MOU to achieve the permanent and timely shutdown of one of those reactors, the Zheleznogorsk reactor, through the construction of fossil fuel energy replacement capacity as provided in the PPRA.

3. The Participants recognize that the timely shutdown of the Zheleznogorsk reactor will prevent additional weapons grade plutonium production at that reactor, and will serve to eliminate the availability of plutonium at its source.

II – SCOPE

1. DOE, for the Government of the United States of America, is providing assistance to the Russian Federation through DOE's Elimination of Weapons Grade Plutonium Production program (the "EWGPP program") to construct fossil fuel energy replacement capacity at Zheleznogorsk so that the Zheleznogorsk reactor can be shut down as provided in the PPRA.

2. The MOFAT, for the Government of the Republic of Korea, intends to make a financial contribution to DOE in calendar year 2005 under this MOU, in the amount of two hundred fifty thousand U.S. dollars (\$250,000.00; the "Contribution"), for use by DOE in the EWGPP program to support the timely shutdown of the Zheleznogorsk reactor by constructing a fossil fuel energy replacement facility.

3. Cooperation under this MOU between DOE and the MOFAT is limited to activities related to providing such fossil fuel energy replacement capacity, and DOE intends to use all funds contributed by the MOFAT under this MOU for the construction of a fossil fuel facility at Zheleznogorsk to permit the shutdown of the Zheleznogorsk reactor.

III – FINANCIAL ARRANGEMENTS

1. The MOFAT intends to transfer the Contribution in one lump sum of two hundred fifty thousand U.S. dollars to account number 8900001 (U.S. Department of Energy, Account Treasury Symbol 89X0309: EWGPP) at the Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 20045, ABA Routing Number: 0213004.

2. In the event any portion of the Contribution is not utilized within one year of its receipt by the DOE, DOE intends to return the unused amount to the MOFAT.

3. The Participants understand that the maximum Contribution payable under this MOU is two hundred fifty thousand U.S. dollars.

4. DOE intends to keep accounts and records of the costs of the activities referred to in paragraph II.3, including all expenditures or commitments, and intends to comply with its relevant regulations and with generally accepted accounting principles including those related to audits.

5. DOE intends to provide to the MOFAT copies of the Zheleznogorsk Plutonium Production Elimination Project (ZPPEP) Monthly Progress Report that are relevant to the activities referred to in paragraph II.3, until the Contribution has been fully disbursed. In

addition, DOE intends to provide to the MOFAT an annual summary progress report and an annual financial report of the ZPPEP until the Contribution has been fully disbursed.

6. DOE intends to allow, with reasonable notice, the MOFAT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the activities referred to in paragraph II.3, for a period of three years after disbursement of the Contribution is completed. The MOFAT understands that DOE may redact from its audits any information that DOE may be required to protect under U.S. law.

7. Any financial contributions by the MOFAT under this MOU to support the construction of fossil fuel energy replacement capacity at Zheleznogorsk are to be considered by the Participants and their governments as partial fulfillment of the pledge by the Government of the Republic of Korea to make a contribution to the Global Partnership.

IV – MANAGEMENT

To manage their cooperation under this MOU, the Participants intend to establish a Committee for the Safe Shutdown of the Operating Plutonium Producing Reactor at Zheleznogorsk (the "Committee"), comprised of an equal number of representatives of each Participant. This Committee should convene periodically at a frequency and location as deemed desirable by the Participants to review progress of implementation of this MOU, to resolve issues that may arise in the course of its implementation, and to review the reports provided by DOE of the use of the Contribution.

V – SOURCE OF FUNDS

DOE intends to inform the MOFAT of all amounts of funds from other donors for the activities referred to in paragraph II.3. Should the amounts of these funds change, DOE intends to promptly advise the MOFAT.

VI – POINTS OF CONTACTS

For purposes of facilitating communication under this MOU, the MOFAT hereby designates:

Director-General for International Organizations
Ministry of Foreign Affairs and Trade
Government of Japan

as its point of contact.

For the same purpose DOE designates:

ZPPEP Federal Project Manager
National Nuclear Security Administration
Elimination of Weapons Grade Plutonium
Production (NA-233)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington D.C. 20585

as its point of contact.

VII – ENTRY INTO OPERATION AND MODIFICATION

1. This MOU is not intended to create rights or obligations binding under international law.
2. Cooperation under this MOU is expected to commence upon signature by both Participants.
3. This MOU may be modified by the Participants in writing. Any such modification may take effect upon signature by the Participants.
4. The Participants do not intend this MOU to continue in operation after the project (as specified in paragraph II.3) is completed.

Signed at Seoul, in duplicate, this day of December, 2005.

FOR THE DEPARTMENT OF ENERGY FOR THE MINISTRY OF FOREIGN AFFAIRS
OF THE UNITED STATES OF AMERICA: AND TRADE OF THE REPUBLIC OF KOREA:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

December 9, 2005

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

LINTON F. BROOKS
ADMINISTRATOR

Jon Paul NA-2, for

SUBJECT:

ACTION: Signature of Memorandum of Understanding (MOU) between the Department of Energy (DOE) of the United States of America and the Ministry of Foreign Affairs and Trade of the Republic of Korea on Participation in the Elimination of Weapons-Grade Plutonium Production (EWGPP) Program (attached).

ISSUE:

To seek your approval for Linton Brooks or his delegate to sign the MOU, pursuant to which the Republic of Korea will contribute \$250,000 toward the permanent shutdown of Russia's Soviet-era plutonium-producing reactor at Zheleznogorsk under the National Nuclear Security Administration (NNSA) EWGPP Program. This is a small contribution that does not affect the Fiscal Year (FY) 2006, 2007, and 2008 budget, but is one more step in proving to Congress there is international support for the program.

BACKGROUND:

In the Russian Federation, three Soviet-era weapons-grade plutonium production reactors continue to operate: the ADE-2 reactor at Zheleznogorsk and the ADE-4 and ADE-5 reactors at Seversk, which produce a total of 1.2 metric tons per year of weapons-grade plutonium and, thus, are an urgent nonproliferation concern for the international community. Although these reactors have operated since the early-to-mid 1960s and are now well beyond their twenty-plus year design life, the Zheleznogorsk and Seversk reactors produce electricity and steam generation capacity for nearby communities and cannot be shut down until replacement power is available. Under agreements



between the U.S. and Russian Federation Governments, the Russian Federation has committed to permanently shut down these reactors when replacement power is available.

The FY 2005 National Defense Authorization Act authorized NNSA to accept, retain, and use financial contributions from foreign entities for EWGPP program activities until 2011, subject to concluding specific agreements therefor and congressional notification requirements for the utilization of the financial contributions. To date, DOE has signed agreements for, and made the requisite congressional notification of, contributions from the United Kingdom (\$20 million), Canada (\$7.3 million), and the Kingdom of the Netherlands (\$1.2 million) to help fund the Zheleznogorsk Project. Under the proposed MOU, the Republic of Korea will make a \$250,000 contribution toward the Zheleznogorsk Project. Again, this is a small contribution that does not affect the FY 2006, 2007, and 2008 budget, but it does prove to Congress there is international support for the program.

SENSITIVITIES: The Republic of Korea Government has requested that the MOU be signed in early December so the funds could be transferred to the United States before the end of Calendar Year 2005.

POLICY IMPACT: None.

CONTACT: James M. Turner, Assistant Deputy Administrator for Nuclear Risk Reduction, NA-23, 202-586-6641.

RECOMMENDATION: That you authorize me or my delegate to sign the MOU.

APPROVE: _____

DISAPPROVE: _____

DATE: _____

Attachment:
Proposed Memorandum of Understanding

cc: Deputy Secretary

MEMORANDUM OF UNDERSTANDING
Between the
DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
and the
AUSTRALIAN RADIATION PROTECTION
AND NUCLEAR SAFETY AGENCY
CONCERNING COOPERATION IN THE AREA OF SECURITY OF RADIOACTIVE
SOURCES AND EMERGENCY MANAGEMENT

The Department of Energy of the United States of America (DOE) and the Australian Radiation Protection and Nuclear Safety Agency (APRANSA) (hereafter called "the Participants"),

Sharing a desire to cooperate in areas of mutual interest related to security of radioactive sources and emergency management,

Have reached the following understanding:

1. Areas of Cooperation
 - 1.1 Cooperation under this Memorandum of Understanding (Memorandum) may include but is not limited to:
 - 1.1.1 development and review of model regulations for the security of radioactive sources;
 - 1.1.2 development and review of a methodology for implementing model regulations for the security of radioactive sources;
 - 1.1.3 development and review of national risk analysis methodology relating to threats, vulnerability, and protection of radioactive sources;
 - 1.1.4 development of registers or inventories related to the security of radioactive sources;
 - 1.1.5 development of systems for identifying and tracing radioactive sources by electronic and other means;
 - 1.1.6 comparison of national strategies for gaining or regaining control over orphan sources;

- 1.1.7 development and review of operational-level techniques and procedures for identifying, locating, and securing orphan sources;
 - 1.1.8 development and review of operational-level techniques and procedures relating to the operation aspects of each Participant's civilian domestic radiation emergency management;
 - 1.1.9 development and review of operation integration to other emergency management organizations at the domestic level;
 - 1.1.10 review of modeling the misuse of radioactive material, including explosive and passive dispersal;
 - 1.1.11 establishment of joint and/or co-operative training and development opportunities at the operational and strategic levels in emergency management and security of radioactive sources;
 - 1.1.12 other areas of cooperation as the Participants may mutually determine in writing.
- 1.2 For purposes of this Memorandum, "radioactive sources" and "orphan sources" have the meaning set forth in the International Atomic Energy Agency's Code of Conduct on the Safety and Security of Radioactive Sources (2004).
2. Forms of Cooperation
- 2.1 The forms of cooperation under this Memorandum may include:
- 2.1.1 exchange and provision of unclassified scientific and technical information;
 - 2.1.2 exchange and provision of equipment, samples, material for testing;
 - 2.1.3 fellowship visits and short-term secondment of a Participant's staff to facilities of the other Participant, relating to emergency management and security of radioactive sources;
 - 2.1.4 such other forms of cooperation as the Participants jointly determine.
- 2.2 If the Participants desire to undertake a joint project in which they intend to share the costs or which may result in the creation of intellectual property, the Participants will conclude an appropriate arrangement therefor, addressing such matters as technical scope, management, cost-sharing, the protection and allocation of intellectual property, and schedule.

3. Dissemination of Non-Proprietary Information

Scientific and technological information of a non-proprietary nature arising from cooperative activities under this Memorandum should be made available to the world scientific community through customary channels, in accordance with the laws, regulations and procedures of each Participant's country.

4. Management

The Participants hereby establish a Joint Steering Committee (JSC), consisting of an equal number of representatives of each Participant, to supervise the activities conducted under this Memorandum. Unless otherwise jointly determined, the JSC should meet at least annually, alternately in the United States and in Australia.

5. General Provisions

- 5.1 Cooperation under this Memorandum may commence upon signature and continue unless terminated in accordance with Paragraph 5.3.
- 5.2 The terms of this Memorandum may be revised at any time in writing by the Participants.
- 5.3 If either Participant wishes to cease its activities under this Memorandum, it should give ninety days' advance written notice to the other Participant.
- 5.4 This Memorandum does not create any legally binding obligations between the Participants.
- 5.5 It is understood that each Participant is responsible for the costs it incurs in implementing this Memorandum. The ability of each Participant to undertake the activities contemplated by this Memorandum is subject to the availability of appropriated funds, personnel and other resources.
- 5.6 All activities of each Participant should be carried out in accordance with the laws and regulations of that Participant's government and applicable international agreements to which that Participant's government is party.

Signed at _____, this _____ day of _____, 2006, in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE AUSTRALIAN RADIATION
PROTECTION AND NUCLEAR
SAFETY AGENCY:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585
March 7, 2006

2006-002422

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM: LINTON F. BROOKS
ADMINISTRATOR

SUBJECT: ACTION: Grant authorization to sign the attached Memorandum of Understanding between the Department of Energy of the United States of America and the Australian Radiation Protection and Nuclear Safety Agency Concerning Cooperation in the Area of Security of Radioactive Sources and Emergency Management.

ISSUE: To seek approval for Linton Brooks or his delegate to sign the Memorandum of Understanding (MOU) to enhance the existing level of cooperation between the Governments of the United States and Australia in radioactive source security and emergency response.

BACKGROUND: The mission of NNSA's Office of the Global Threat Reduction's International Radiological Threat Reduction program is to locate, identify, recover, consolidate, and enhance the security internationally of high-risk radiological materials that could be used in an RDD. And in implementing this mission, NNSA has been cooperating with the Australian Nuclear Science and Technology Organization (ANSTO) to enhance radioactive source security in Southeast Asia.

In an effort to enhance the existing level of cooperation between the Governments of the United States and Australia in radioactive source security and emergency response, NNSA now proposes to conclude an agreement with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), for the purposes of exchanging information and know-how and to work on areas of mutual interest related to security of radioactive sources and emergency response.



SENSITIVITIES:

The Australian Government has requested that the MOU be signed on March 10, 2006, in Washington, when the CEO of ARPANSA will meet with Jerald Paul, Deputy Administrator for Defense Nuclear Nonproliferation.

POLICY IMPACT:

None.

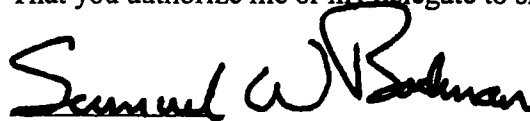
CONTACT:

Andrew Bieniawski, Assistant Deputy Administrator for Global Threat Reduction, x 6-0775.

RECOMMENDATION:

That you authorize me or my delegate to sign the MOU.

APPROVE:



DISAPPROVE:

DATE:

3/9/06

Attachment:

Proposed Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE STATE CUSTOMS COMMITTEE OF THE REPUBLIC OF ARMENIA
CONCERNING COOPERATION TO PREVENT
ILLCIT TRAFFICKING IN NUCLEAR AND OTHER RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE) and the State Customs Committee of the Republic of Armenia (SCC), hereinafter referred to collectively as the Participants:

Desiring to cooperate to prevent illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the installation or improvement of technical systems for the detection and identification of these materials at points of entry/exit in the Republic of Armenia (hereinafter Armenia);

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide SCC technical assistance, at no cost to the Government of Armenia, in the form of equipment and materials, as well as training and services, for SCC's use to detect and interdict illicit trafficking in special nuclear material and other radioactive material at points of entry/exit in Armenia jointly selected by the DOE and SCC. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. Each Participant may, following written notification to the other Participant, delegate responsibilities for the implementation of this Memorandum of Understanding ("MOU") to other ministries or agencies of its respective government.
3. DOE's technical assistance may include:
 - a. delivery and installation at selected airports, land border crossings and other facilities jointly determined by the Participants, of equipment adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment);

- b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-supplied equipment;
 - c. support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan jointly determined by the Participants;
 - d. training of SCC personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - e. additional areas of cooperation of mutual interest to DOE and SCC as may be jointly determined by the Participants.
- 4. Upon request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this MOU.
 - 5. DOE and the SCC may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
 - 6. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and the SCC or their designated implementing agents.
 - 7. The SCC should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Armenia.

II. PROVISION OF INFORMATION

The SCC is to furnish the Government of the United States of America, through its representatives (to be designated by DOE) present in Armenia, in a format and according to a schedule to be determined by the Participants, with data on any detections or seizures of special nuclear material and of other radioactive material made as a result of the equipment and materials supplied under this MOU.

III. NON-TRANSFER

Unless the written consent of the DOE has first been obtained, the SCC should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than to other ministries, bureaus, agencies or departments within the Government of Armenia.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided under this MOU.

V. GENERAL PROVISION

This MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU may begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modifications may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at _____, this _____ day of _____, 2006, in duplicate,
in the English and Armenian languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE STATE CUSTOMS
COMMITTEE OF THE REPUBLIC
OF ARMENIA:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

2006-003003

March 22, 2006

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY**FROM:****LINTON F. BROOKS**
ADMINISTRATOR**SUBJECT:**

ACTION: Delegation of signature authority for Memorandum of Understanding (MOU) between the Department of Energy and the State Customs Committee of the Republic of Armenia for Cooperation in the Prevention of Illicit Trafficking in Nuclear and Other Radioactive Material

ISSUE:

To seek your approval for Linton Brooks or his delegate to sign the MOU between the Department of Energy and the State Customs Committee of the Republic of Armenia For Cooperation in the Prevention of Illicit Trafficking in Nuclear Material (Tab A).

BACKGROUND:

Cooperation under this MOU will implement the Office of International Material Protection and Cooperation's Second Line of Defense (SLD) Program, whose mission is to deploy radiation detection equipment at strategic transit and border crossings (air, land, and sea) in order to provide foreign governments with the technical means to detect, deter, and interdict illicit trafficking in nuclear and other radioactive materials. In Armenia, the SLD Program will install radiation detection equipment at nine selected sites and provide training to Armenian Customs and other law enforcement personnel in the use and maintenance of the radiation detection equipment.

The Government of Armenia has requested U.S. assistance to address radiological and nuclear security concerns along Armenia's borders.



To make a timely response to this request, the MOU should be signed at the earliest opportunity so that the SLD program can begin the installation of radiation detection equipment in Armenia.

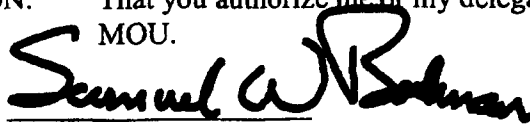
SENSITIVITIES: None.

POLICY IMPACT: None.

CONTACT: David Huizenga, Assistant Deputy Administrator for International Material Protection and Cooperation x 6-0368.

RECOMMENDATION: That you authorize me or my delegate to sign the MOU.

APPROVE:



DISAPPROVE:

DATE:

March 28, 2006

Attachment:

Tab A: Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF ELECTRICITY
OF THE REPUBLIC OF IRAQ
FOR
COOPERATION ON ENERGY ANALYSIS, SCIENCE AND
TECHNOLOGY, ENERGY AWARENESS AND EDUCATION, AND
ENERGY TECHNOLOGY DEMONSTRATION

The Department of Energy of the United States of America and the Ministry of Electricity of the Republic of Iraq, hereinafter referred to as the "Participants":

Having an interest in establishing cooperation in the areas of energy analysis, science and technology, energy awareness and education, and energy technology demonstration;

Having a mutual interest in exchanging experience and views on opportunities for the utilization of energy technologies and in fostering collaboration between the two countries in these areas, particularly through training, educational and capacity building activities;

Recognizing that energy security and the quality of life can be enhanced through effective and environmentally sound utilization of energy sources; and

Further recognizing that cooperation in the areas of energy analysis, science, technology, energy awareness and education, and energy technology demonstration would promote increased economic interaction, improved energy utilization through a more informed energy consuming public, facilitate energy technology transfer, accelerate the commercialization of energy systems and products, and expand opportunities for international trade between the United States and Iraq;

Have reached the following understandings:

ARTICLE I

- A. Under this Memorandum of Understanding (MOU), the Participants seek to facilitate appropriate joint activities relating to energy analysis, science and technology, energy awareness and education, and energy technology demonstration in areas of mutual interest, including, but not limited to, the following:
1. Electricity generation, transmission, and distribution, including (but not limited to), combustion turbine technology, fossil fueled steam generation units, hydro generation, transmission technologies, distribution technologies, and communication and control technologies;
 2. Environmental issues associated with energy production, transmission and distribution, including operational and safety standards;
 3. Energy information, including collection, analysis, and forecasting;
 4. Energy awareness and education materials for all consumers;
 5. Root cause analysis of electric sector problems including (but not limited to) the use of advanced computer modeling systems, data collection technologies, processes for root cause analysis, and procedures for preventing similar problems from occurring; and,
 6. Such other areas as may be mutually determined by the Participants.

ARTICLE II

- A. The forms of cooperation in the areas specified in Article I of this MOU may include the following:
1. Exchanging energy experts, specialists and scientists to participate in cooperative activities;
 2. Organizing and participating in seminars, workshops and conferences on specific topics;
 3. Exchanging information on the development and utilization of energy technologies that are secure, economically sound, and protect the environment;
 4. Providing energy awareness, education, and training information for all energy consumers;
 5. Sharing relevant non-proprietary information and practical experience in energy fields;

6. Assisting Iraq in capacity development through training, joint government-industry activities, faculty and student exchanges and tours, and exploration of ways to promote the transfer of skills and technology to support human resources development, and institutional infrastructure; and,
7. Such other forms of cooperation within the scope of this MOU as the Participants may mutually determine.

ARTICLE III

- A. The Participants intend to establish the United States-Iraqi Consultative Mechanism to promote energy analysis consultations, energy technology demonstration, energy awareness, education and training, with a focus on capacity building in Iraq.
- B. The Consultative Mechanism is to consist of representatives designated by the Participants. As mutually determined, the Participants may include representatives, from other organizations, as appropriate based on the agenda of their consultations.
- C. Each Participant should appoint an official contact to prepare for the consultations, energy awareness and education materials, and energy training, and to be responsible for facilitating communication between the Participants.
- D. In view of the significant distance between the two countries, electronic and telephonic communications are the preferred modes of interaction.
- E. Meetings of the Consultative Mechanism and of the Participants' selected representatives may be held at such times and places as jointly determined by the Participants.

ARTICLE IV

Each Participant intends to facilitate, through coordination with the appropriate competent authorities in its respective country, the granting of visas and other forms of official permission for entry into and exit from its country of personnel of the other country engaged in cooperative activities under this MOU.

ARTICLE V

- A. Each Participant is to conduct the activities provided for under this MOU in accordance with the applicable laws and regulations of its respective country. Each Participant is responsible for the costs of its own activities under this MOU, unless the Participants otherwise determine in writing.

- B. It is understood that this MOU does not create any legally binding obligations between the Participants.
- C. This MOU takes effect upon approval by the Iraqi Parliament. This MOU may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants. If either Participant wishes to end its cooperation under this MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at the U.S. Department of Energy, in Washington, D.C., on the twenty-sixth day of July, 2006.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

Samuel W. Bodman

FOR THE MINISTRY OF ELECTRICITY
THE REPUBLIC OF IRAQ:

Abdulhamid

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE CENTRAL BOARD OF REVENUE OF THE
ISLAMIC REPUBLIC OF PAKISTAN
CONCERNING COOPERATION TO PREVENT
ILLICIT TRAFFICKING IN NUCLEAR AND OTHER RADIOACTIVE MATERIAL

I. Purpose

This Memorandum of Understanding (MOU) is entered into by the Department of Energy (DOE) of the United States of America and the Central Board of Revenue (CBR) of the Islamic Republic of Pakistan, hereinafter referred to collectively as the “Participants”, to identify the terms and conditions accepted by each Participant with respect to cooperation to prevent illicit trafficking in nuclear and other radioactive material.

II. Background

Desiring to cooperate to prevent illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the installation or improvement of technical systems for the detection and identification of these materials at points of entry/exit in the Islamic Republic of Pakistan (hereinafter referred to as Pakistan), the Participants have reached the following understanding:

III. Scope of Cooperation

A. The DOE, through its National Nuclear Security Administration, may provide CBR technical assistance, at no cost, in the form of equipment and materials, as well as training and services, for CBR’s use to detect and interdict illicit trafficking in special nuclear material and other radioactive material at points of entry/exit in Pakistan jointly selected by the DOE and CBR. As used herein, “special nuclear material” means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. “Other

radioactive material” includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

- B. Each Participant may, following written notification to the other Participant, delegate responsibilities for the implementation of this MOU to other ministries or agencies of its respective Government.
- C. DOE’s technical assistance may include:
 - 1. Delivery and installation at selected seaports, airports, and land border crossings as determined by CBR with the concurrence of DOE, of equipment adapted as appropriate for customs control conditions (including testing, set-up, and demonstration of the equipment);
 - 2. Delivery of spare parts kits, test equipment, and other maintenance equipment to maintain the DOE-supplied equipment;
 - 3. Support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan jointly determined by the Participants;
 - 4. Training of CBR personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - 5. Additional areas of cooperation of mutual interest to DOE and CBR.
- D. Upon request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this MOU for a period of three years starting from the deployment date of the equipment.
- E. DOE and the CBR may conduct technical workshops, consultations, site surveys, verification inspections, and acceptance testing of materials and installed equipment, according to procedures mutually agreed upon by the Participants. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.

- F. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and CBR or their designated implementing agents.
- G. CBR should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Pakistan.

IV. Provision of Information

CBR is to furnish the Government of the United States of America, through its representatives (to be designated by DOE) present in Pakistan, in a format and according to a schedule to be determined by the Participants, with data on any detections or seizures of special nuclear material and of other radioactive material made as a result of the equipment and materials supplied under this MOU.

V. Non-Transfer of Equipment

Unless the written consent of the DOE has first been obtained, CBR should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than to governmental authorities of Pakistan.

VI. Tax and Customs Treatment of Equipment

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties, or other charges on equipment, materials, training, or services provided under this MOU.

VII. General Provision

This MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VIII. Effective Date and Duration

Implementation of this MOU may begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modifications may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days advance written notice to the other Participant.

Signed at on the day of , 2006, in duplicate.

For the Department of Energy of the
United States of America:

For the Central Board of Revenue of
the Islamic Republic of Pakistan:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

September 5, 2006

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR WILLIAM H. TOBEY
DEPUTY ADMINISTRATOR
FOR DEFENSE NUCLEAR NONPROLIFERATION

FROM: LINTON F. BROOKS
ADMINISTRATOR

A handwritten signature in dark ink, appearing to read "L. F. Brooks", is written over the printed name of the administrator.

SUBJECT: DELEGATION OF SIGNATURE AUTHORITY

This memorandum is the instrument whereby I authorize you or your delegate to sign on behalf of the Department of Energy, the Memorandum of Understanding (MOU) to implement National Nuclear Security Administration's Second Line of Defense Program in Pakistan for cooperation in the prevention of illicit trafficking of nuclear and other radioactive materials. This authorization applies only to this MOU.



MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE CUSTOMS DIRECTORATE OF THE SLOVAK REPUBLIC
CONCERNING COOPERATION TO PREVENT
ILLICIT TRAFFICKING IN NUCLEAR AND OTHER RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE) and the Customs Directorate of the Slovak Republic (CDSR), hereinafter referred to collectively as the "Participants":

Desiring to cooperate to prevent illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the installation or improvement of technical systems for the detection and identification of these materials at points of entry/exit in the Slovak Republic; and

Having regard to the obligations of the Slovak Republic deriving from its membership in the European Community and the European Atomic Energy Community;

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide CDSR technical assistance, at no cost to the Government of the Slovak Republic, in the form of equipment and materials, as well as training and services, for CDSR's use to detect and interdict illicit trafficking in special nuclear material and other radioactive material at points of entry/exit in the Slovak Republic as mutually identified by the DOE and CDSR. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. Each Participant may, following written notification to the other Participant, delegate responsibilities for the implementation of this Memorandum of Understanding ("MOU") to other ministries or agencies of its respective government.
3. DOE's technical assistance may include:
 - a. development, in consultation and coordination with CDSR, of technical means and methods of CDSR's detection and identification of special

nuclear material and other radioactive material, and response procedures and capabilities;

- b. delivery and installation, at points of entry/exit, of equipment adapted as appropriate for conditions at customs control posts and other selected locations in the Slovak Republic (including testing, setup, and demonstration of the equipment);
 - c. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-supplied equipment;
 - d. training of CDSR personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE;
 - e. support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan mutually determined by the Participants; and
 - f. additional areas of cooperation of mutual interest to DOE and the CDSR.
- 4. Upon reasonable request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this MOU for a period of three years starting from the deployment date of the equipment.
 - 5. DOE and the CDSR may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
 - 6. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and the CDSR or their designated implementing agents.
 - 7. The CDSR should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in the Slovak Republic.

II. PROVISION OF INFORMATION

The CDSR should furnish the Bureau of Customs and Border Protection of the United States of America with data on any detections or seizures of unauthorized special nuclear material and of other radioactive material that are in breach of

customs legislation, in accordance with the provisions of the Agreement between the United States of America and the European Community on Customs Cooperation and Mutual Assistance in Customs Matters of May 28, 1997, as amended.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, the CDSR should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than within the Government of the Slovak Republic.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided under this MOU.

V. GENERAL PROVISION

This MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU is expected to begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE CUSTOMS DIRECTORATE
OF THE SLOVAK REPUBLIC:

Date:
Place:

Date:
Place:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

December 8, 2006

EXEC-2006-015173

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM: LINTON F. BROOKS
ADMINISTRATOR *LF Brooks*

SUBJECT: ACTION: Signature of Memorandum of Understanding (MOU) with the Customs Directorate of the Slovak Republic.

ISSUE: To seek your approval to sign or designate a delegate to sign an MOU between the Department of Energy and the Customs Directorate of the Slovak Republic for Cooperation in the Prevention of Illicit Trafficking in Nuclear Material (Tab A).

BACKGROUND: Cooperation under this MOU will implement the Office of International Material Protection and Cooperation's Second Line of Defense (SLD) Program, whose mission is to deploy radiation detection equipment at strategic transit and border crossings (air, land, and sea) in order to provide host governments with the technical means to detect, deter, and interdict illicit trafficking in nuclear and other radioactive materials. In the Slovak Republic, the SLD Program will enter into a cost-sharing arrangement by which the SLD Program will provide radiation detection equipment for four selected sites and provide training to Slovakian Customs and other law enforcement personnel in the use and maintenance of the radiation detection equipment, while the Slovakian Government will fund installation of the equipment. While this arrangement is not reflected in the MOU language, it has been negotiated verbally between NNSA and the Government of the Slovak Republic.

SENSITIVITIES: The Government of the Slovak Republic has requested U.S. assistance to address radiological and nuclear security concerns along the Slovakian border with Ukraine. To make a timely response to this request, the MOU should be signed at the



earliest opportunity, which will allow the National Nuclear Security Administration to proceed with the immediate provision of radiation detection equipment for use by Slovakian authorities.

POLICY IMPACT: None

CONTACT: David Huizenga, Assistant Deputy Administrator
for International Material Protection and
Cooperation x 6-0368

RECOMMENDATION: That you authorize me or my delegate to sign the
MOU.

APPROVE:

AK. for SL

DISAPPROVE:

DATE:

12/19/06

Attachment:

Tab A: Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE DEPARTMENT OF FOREIGN AFFAIRS AND
INTERNATIONAL TRADE CANADA
ON PARTICIPATION IN THE
GLOBAL THREAT REDUCTION INITIATIVE

The Department of Energy of the United States of America (DOE) and the Department of Foreign Affairs and International Trade Canada (DFAIT), hereinafter referred to as the "Participants";

SEEKING to promote the non-proliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968; and

GUIDED by the mutual desire to cooperate with each other to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials, in accordance with the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

HAVE REACHED THE FOLLOWING UNDERSTANDING:

1.0 OBJECTIVE

- 1.1 The objective of this Memorandum of Understanding (hereinafter referred to as "MOU") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation projects, initially in Russia and then in other countries, including those of the former Soviet Union, to address non-proliferation, disarmament, counter-terrorism and nuclear security issues, including threats posed by vulnerable, high-risk nuclear and other radioactive materials.

- 1.2 The Participants recognize that vulnerable high-risk nuclear and other radioactive materials in countries of the former Soviet Union constitute a proliferation threat, and, in furtherance of their Global Partnership commitments, the Participants intend to cooperate pursuant to this MOU to strengthen the capabilities of those countries to identify, secure, remove and/or facilitate the disposition of those materials.

2.0 SCOPE OF COOPERATION

- 2.1 DOE, on behalf of the Government of the United States of America, is providing technical assistance through the DOE/National Nuclear Security Administration's Global Threat Reduction Initiative to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials in countries around the world.

- 2.2 DFAIT intends to make a financial contribution (hereinafter referred to as the "Contribution") in the amount of up to \$2 million Canadian dollars for the direct costs of recovery, decommissioning, securing, replacing with alternative power sources, disassembly, safe and secure transportation, and final disposal of up to fifteen (15) radioisotopic thermoelectric generators (RTGs) in Russia (hereinafter referred to as the "Cooperation Project").

- 2.3 The Participants intend to complete the Cooperation Project within thirty-six (36) months of signature of this MOU.

3.0 FINANCIAL ARRANGEMENTS AND REPORTING

- 3.1 DFAIT intends to pay the Contribution in one lump sum to DOE's account at the Federal Reserve Bank of New York, in accordance with arrangements determined by the Participants. DOE intends to use this Contribution solely for the Cooperation Project.

- 3.2 In the event any portion of the Contribution is not utilized within five (5) years of its receipt by DOE, DOE intends to return to DFAIT the unused portion of said Contribution.

- 3.3 The Contribution made hereunder is not for the consideration of a supply or service to DFAIT and as such, the Canadian Goods and Services Tax does not apply to the Contribution made under this MOU.

- 3.4 The Participants understand that the maximum Contribution payable under this MOU is \$2 million Canadian dollars.

- 3.5 DOE intends to keep accounts and records of the costs of the Cooperation Project, including all expenditures or commitments, and intends to comply with its relevant regulations and with generally accepted accounting principles, including those related to audits.
- 3.6 By the last day of every month for the duration of the Cooperation Project, DOE intends to provide to DFAIT monthly written updates summarizing the status of the implementation of the Cooperation Project and the activities undertaken during the preceding month.
- 3.7 For the duration of the Cooperation Project, DOE intends to provide to DFAIT a copy of the United States Secretary of Energy's annual report to the United States Congress's defense committees regarding international contributions to the Global Threat Reduction Initiative.
- 3.8 Ninety (90) days after the completion, or earlier termination, of the Cooperation Project, DOE intends to submit to DFAIT a Final Report. It should include, but not be limited to:
 - 3.8.1 a description of the activities under the Cooperation Project;
 - 3.8.2 a comparison of planned versus actual activities, including an explanation of variances, successes and failures of the Cooperation Project in terms of meeting its objectives and milestones;
 - 3.8.3 problems encountered, actions taken, results and lessons learned; and
 - 3.8.4 conclusions and recommendations.
- 3.9 DOE intends to allow, with reasonable notice, DFAIT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the Cooperation Project, during the Cooperation Project and for a period of three (3) years after disbursement is completed as described in Paragraph 9.2 of this MOU. DFAIT understands that DOE may redact from its audits any information that DOE may be required to protect under United States law.
- 3.10 The Participants understand that business-confidential information or documents exchanged between the Participants should be disclosed only upon the written consent of the providing Participant and should be protected by each Participant to the fullest extent allowed by the law of its respective country.
- 4.0 PUBLIC ANNOUNCEMENTS
- 4.1 Where appropriate, and upon consultation, the Participants intend to acknowledge the Contribution in publications, speeches, press releases or other similar media.
- 4.2 The Participants intend, upon consultation and mutual consent, to issue public announcements concerning the Contribution in their respective official languages.

5.0 DIFFERENCES OF INTERPRETATION OR APPLICATION

The Participants intend to resolve any difference arising out of the application or interpretation of this MOU amicably, through consultations.

6.0 CONFLICT OF INTEREST

The Participants intend that no public office holder or member of the House of Commons of Canada, nor any public office holder of the United States, may derive a benefit from this MOU.

7.0 SOURCE OF FUNDS

For the duration of the Cooperation Project, DOE intends to inform DFAIT of all amounts of funds received from other international donors to the Cooperation Project. Should the amounts of these funds change, DOE intends to promptly advise DFAIT.

8.0 POINTS OF CONTACT

For purposes of facilitating communication under this MOU, DFAIT hereby designates:

Senior Program Manager
Nuclear and Radiological Security
Global Partnership Program (IGX)
Department of Foreign Affairs and International Trade Canada (DFAIT)
125 Sussex Drive
Ottawa, Ontario K1A 0G2

as its point of contact.

For the same purposes DOE designates:

Executive Officer
Office of Global Threat Reduction (NA-21)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

as its point of contact.

9.0 ENTRY INTO OPERATION, DURATION, MODIFICATION,
INTERPRETATION, AND TERMINATION

9.1 Cooperation under this MOU is expected to commence upon signature by both Participants.

9.2 DOE intends to inform DFAIT in writing of the date on which final disbursement of the Contribution is completed.

9.3 This MOU may be modified by the Participants jointly in writing.

9.4 The Participants do not intend this MOU, or any provision thereof, to create any legally binding obligations upon the Participants.

9.5 A Participant may terminate this MOU upon giving this other Participant three (3) months written notice. Notwithstanding termination of this MOU, Paragraphs 3.8 and 3.9 continue in effect according to their respective terms.

Signed in duplicate in the English and French languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE DEPARTMENT OF FOREIGN
AFFAIRS AND INTERNATIONAL
TRADE CANADA:

Signed at:

Signed at:

On:
Day-Month-Year

On:
Day-Month-Year

Signature:

Signature:

Name:

Name:

Title:

Title:

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE DEPARTMENT OF FOREIGN AFFAIRS AND
INTERNATIONAL TRADE CANADA
ON PARTICIPATION IN THE
SECOND LINE OF DEFENSE PROGRAM

The Department of Energy of the United States of America (DOE) and the Department of Foreign Affairs and International Trade Canada (DFAIT), hereinafter referred to as the "Participants";

SEEKING to promote the non-proliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968;

NOTING the Implementing Arrangement between the Department of Energy of the United States of America and the Administration of the State Border Guard Service of Ukraine for Cooperation in the Area of Prevention of Illicit Trafficking in Nuclear and Other Radioactive Material of April 20, 2006; and

GUIDED by the mutual desire to cooperate with each other to strengthen the overall capability of Ukraine to detect and deter the illicit trafficking in nuclear and other radioactive material across international borders, which activity falls under the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

HAVE REACHED THE FOLLOWING UNDERSTANDING:

1.0 OBJECTIVE

- 1.1 The objective of this Memorandum of Understanding (hereinafter referred to as "MOU") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation

projects, initially in Russia and then in other countries, including those of the former Soviet Union, to address non-proliferation, disarmament, counter-terrorism and nuclear security issues, including threats posed by vulnerable, high-risk nuclear and other radioactive materials.

- 1.2 The Participants recognize that vulnerable high-risk nuclear and other radioactive materials in countries of the former Soviet Union constitute a proliferation threat, and, in furtherance of their Global Partnership commitments, the Participants intend to cooperate pursuant to this MOU to strengthen the capability of Ukraine to detect and deter nuclear smuggling across its borders.

2.0 SCOPE OF COOPERATION

- 2.1 DOE, on behalf of the Government of the United States of America, is providing technical assistance through the DOE/National Nuclear Security Administration's Office of the Second Line of Defense to detect and deter illicit trafficking of nuclear and other radioactive material by securing international land borders, seaports, and airports in countries around the world.

- 2.2 DFAIT intends to make a financial contribution (hereinafter referred to as the "Contribution") in the amount of up to \$4,900,000 Canadian dollars to be used in support of SLD's technical assistance to Ukraine primarily for security upgrades to Boryspil International Airport in Kyiv, but which may also be applied to security upgrades to international Ukrainian border crossing points (hereinafter referred to as the "Cooperation Project"). Specifically, the Contribution may be utilized to support the direct costs of SLD's provision and installation of radiation detection and related communications equipment, maintenance of the equipment, and training of Ukrainian border guards and other host government personnel:

- 2.2.1 at the Boryspil International Airport;
- 2.2.2 at the Bachevsk, Luzhanka, and Uzhgorod vehicle crossings; and
- 2.2.3 at the Odessa airport and seaport and the Ilichevsk seaport.

- 2.3 The Participants intend to complete the Cooperation Project within twenty-four (24) months of signature of this MOU.

3.0 FINANCIAL ARRANGEMENTS AND REPORTING

- 3.1 DFAIT intends to pay the Contribution in one lump sum to DOE's account at the Federal Reserve Bank of New York, in accordance with arrangements determined by the Participants. DOE intends to use this Contribution solely for the Cooperation Project.
- 3.2 In the event any portion of the Contribution is not utilized within five (5) years of its receipt by DOE, DOE intends to return to DFAIT the unused portion of said Contribution.

- 3.3 The Contribution made hereunder is not for the consideration of a supply or service to DFAIT and as such, the Canadian Goods and Services Tax does not apply to the Contribution made under this MOU.
- 3.4 The Participants understand that the maximum Contribution payable under this MOU is \$4,900,000 Canadian dollars.
- 3.5 DOE intends to keep accounts and records of the costs of the Cooperation Project, including all expenditures or commitments, and intends to comply with its relevant regulations and with generally accepted accounting principles, including those related to audits.
- 3.6 By the last day of every month for the duration of the Cooperation Project, DOE intends to provide to DFAIT monthly written updates summarizing the status of the implementation of the Cooperation Project and the activities undertaken during the preceding month.
- 3.7 For the duration of the Cooperation Project, DOE intends to provide to DFAIT a copy of the United States Secretary of Energy's annual report to the United States Congress's defense committees regarding international contributions to the Second Line of Defense Program.
- 3.8 Ninety (90) days after the completion, or earlier termination, of the Cooperation Project, DOE intends to submit to DFAIT a Final Report. It should include, but not be limited to:
- 3.8.1 a description of the activities under the Cooperation Project;
 - 3.8.2 a comparison of planned versus actual activities, including an explanation of variances, successes and failures of the Cooperation Project in terms of meeting its objectives and milestones;
 - 3.8.3 problems encountered, actions taken, results and lessons learned; and
 - 3.8.4 conclusions and recommendations.
- 3.9 DOE intends to allow, with reasonable notice, DFAIT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the Cooperation Project, during the Cooperation Project and for a period of three (3) years after disbursement is completed as described in Paragraph 9.2 of this MOU. DFAIT understands that DOE may redact from its audits any information that DOE may be required to protect under United States law.
- 3.10 The Participants understand that business-confidential information or documents exchanged between the Participants should be disclosed only upon the written consent of the providing Participant and should be protected by each Participant to the fullest extent allowed by the law of its respective country.

4.0 PUBLIC ANNOUNCEMENTS

- 4.1 Where appropriate, and upon consultation, the Participants intend to acknowledge the Contribution in publications, speeches, press releases or other similar media.
- 4.2 The Participants intend, upon consultation and mutual consent, to issue public announcements concerning the Contribution in their respective official languages.

5.0 DIFFERENCES OF INTERPRETATION OR APPLICATION

The Participants intend to resolve any difference arising out of the application or interpretation of this MOU amicably, through consultations.

6.0 CONFLICT OF INTEREST

The Participants intend that no public office holder or member of the House of Commons of Canada, nor any public office holder of the United States, may derive a benefit from this MOU.

7.0 SOURCE OF FUNDS

For the duration of the Cooperation Project, DOE intends to inform DFAIT of all amounts of funds received from other international donors to the Cooperation Project. Should the amounts of these funds change, DOE intends to promptly advise DFAIT.

8.0 POINTS OF CONTACT

For purposes of facilitating communication under this MOU, DFAIT hereby designates:

Senior Program Manager
Nuclear and Radiological Security
Global Partnership Program (IGX)
Department of Foreign Affairs and International Trade Canada (DFAIT)
125 Sussex Drive
Ottawa, Ontario K1A 0G2

as its point of contact.

For the same purposes DOE designates:

Director
Office of the Second Line of Defense (NA-25)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

as its point of contact.

- 9.0 ENTRY INTO OPERATION, DURATION, MODIFICATION, INTERPRETATION, AND TERMINATION
- 9.1 Cooperation under this MOU is expected to commence upon signature by both Participants.
- 9.2 DOE intends to inform DFAIT in writing of the date on which final disbursement of the Contribution is completed.
- 9.3 This MOU may be modified by the Participants jointly in writing.
- 9.4 The Participants do not intend this MOU, or any provision thereof, to create any legally binding obligations upon the Participants.
- 9.5 A Participant may terminate this MOU upon giving the other Participant three (3) months written notice. Notwithstanding termination of this MOU, Paragraphs 3.8 and 3.9 continue in effect according to their respective terms.

Signed in duplicate in the English and French languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

Signed at:

On:
Day-Month-Year

Signature:

Name:

Title:

FOR THE DEPARTMENT OF FOREIGN
AFFAIRS AND INTERNATIONAL
TRADE CANADA:

Signed at:

On:
Day-Month-Year

Signature:

Name:

Title:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

March 1, 2007

EXEC-2007-001553

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ACTING ADMINISTRATOR

SUBJECT:

ACTION: Signature of two Memoranda of Understanding (MOU) between the Department of Energy and Canada's Department of Foreign Affairs and International Trade (Tabs 1 and 2).

ISSUE:

To seek your approval for me or my designate to sign the two MOUs with Canada.

DISCUSSION:

The Government of Canada, as part of its commitment to the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction initiated by the G8 at the Kananaskis Summit in June 2002, desires to contribute \$2 million (Canadian dollars) to NNSA's Global Threat Reduction Initiative (GTRI) and \$4.9 million (Canadian dollars) to the Second Line of Defense Program.

Canada's GTRI contribution would be used to recover, replace and remove up to 15 Radioisotopic Thermoelectric Generators (RTGs) in Russia. RTGs generally power navigation beacons (such as lighthouses) along shipping lanes, and are currently powered by Strontium-90 fuel. Removing these potential radiological dirty bomb sources promotes permanent threat reduction efforts under the GTRI Program.

The SLD contribution would be used for the installation of radiation detection portal monitors and associated equipment at selected Ukrainian locations, including Boryspil International Airport, as part of the SLD program's effort to detect and deter illicit trafficking in nuclear and other radioactive materials at international land border crossings, airports and seaports around the world.

The John Warner National Defense Authorization Act for Fiscal Year 2007 authorizes DOE to accept international contributions for GTRI and SLD threat reduction efforts.



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Canada's contributions to GTRI and SLD are part of its overall \$1 billion pledge under the Global Partnership. Canada already supports the destruction of chemical weapons, dismantlement of nuclear submarines, employment of former weapon scientists, and disposition of fissile materials. The Government of Canada has contributed funds to NNSA's Elimination of Weapons Grade Plutonium Production Program with great success. Canada's proposed contributions to GTRI and SLD threat reduction efforts is a key element of its strategy of broader participation in international nonproliferation efforts. Based on the successes of Canada's previous contributions to advance nonproliferation, additional contributions are expected over the next few years to further accelerate threat reduction efforts.

SENSITIVITIES:

Canada's Department of Foreign Affairs and International Trade advises that the MOUs must be signed no later than March 7, to permit Canada to disburse the funds to DOE before the end of Canada's fiscal year (March 31). Failure to meet this deadline will mean permanent loss of the \$4.9 million (SLD) and \$2 million (GTRI) identified in the MOUs.

POLICY IMPACT:

None.

CONTACTS:

Andrew Bieniawski, Assistant Deputy Administrator for Global Threat Reduction x 6-0775

David Huizenga, Assistant Deputy Administrator for International Material Protection and Cooperation x 6-0368.

RECOMMENDATION:

That you authorize me or my designate to sign both proposed MOUs.

APPROVE:



DISAPPROVE:

DATE:

3/1/07

Attachments:

Tab 1: Proposed GTRI MOU with Canada

Tab 2: Proposed SLD MOU with Canada

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF
THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF FINANCE AND PUBLIC CREDIT OF
THE UNITED MEXICAN STATES
CONCERNING COOPERATION TO PREVENT
ILLCIT TRAFFICKING IN NUCLEAR AND OTHER RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE) and the Ministry of Finance and Public Credit of the United Mexican States (SHCP), hereinafter referred to as the "Participants":

Desiring to cooperate to prevent illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the installation and improvement of technical systems for the detection and identification of these materials at points of entry/exit in Mexico;

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide SHCP, through the Administration General of Customs (AGC) of the Tax Administration Service, technical assistance, on a cost-shared basis as jointly determined by the Participants, in the form of equipment and materials, as well as training and services, for AGC's use to detect and interdict illicit trafficking in special nuclear material and other radioactive material at points of entry/exit in Mexico jointly selected by the DOE and AGC. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. Each Participant is to provide written notification to the other Participant where the assistance or participation of other ministries or agencies within its Government is required for the implementation of this Memorandum of Understanding (Memorandum) in accordance with that Participant's domestic laws, regulations and procedures.

3. DOE's technical assistance may include:
 - a. delivery and installation at selected points of entry/exit located at seaports, airports, land border crossings and other facilities jointly determined by the Participants, of equipment adapted as appropriate for particular conditions at customs control posts and other selected locations in Mexico (including testing, setup, and demonstration of the equipment);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-supplied equipment;
 - c. support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan jointly determined by the Participants;
 - d. training of AGC personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - e. additional areas of cooperation of mutual interest to DOE and AGC.
4. Upon request by DOE, and in coordination with AGC, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum.
5. DOE and AGC may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this Memorandum.
6. The terms of any technical assistance provided under this Memorandum are expected to be set forth in contracts or other written arrangements between DOE and SHCP or their designated implementing agents.
7. SHCP should endeavor to ensure that equipment and materials provided under this Memorandum are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Mexico.

II. PROVISION OF INFORMATION

AGC is to furnish the Government of the United States of America, through U.S. Customs and Border Protection, in accordance with the Agreement between the Government of the United States of America and the Government of the United Mexican States Regarding Mutual Assistance Between their Customs Administrations of June 20, 2000, and in a format and according to a schedule to be determined by the Participants, with data on detections or seizures of special nuclear material and of other radioactive material made as a result of the use of the equipment and materials supplied under the Memorandum.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, SHCP should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this Memorandum, other than within the Government of the United Mexican States.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its designated implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided under this Memorandum. Implementation of this provision is to be undertaken in accordance with the laws of the United Mexican States.

V. GENERAL PROVISIONS

1. This Memorandum represents the will and spirit of cooperation between the Participants and does not constitute a legally binding agreement.
2. All activities of each Participant and its implementing agents under this Memorandum should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

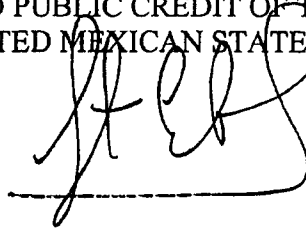
Implementation of this Memorandum may begin upon signature by both Participants. This Memorandum may be modified in writing by the Participants' mutual consent. Any such modifications may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the Memorandum, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at Washington, this sixteenth day of April, 2007, in duplicate in the English and Spanish languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

A handwritten signature in cursive script, appearing to read "Samuel Bodman", written in black ink.

FOR THE MINISTRY OF FINANCE
AND PUBLIC CREDIT OF THE
UNITED MEXICAN STATES:

A handwritten signature in cursive script, written in black ink, positioned above a horizontal line.

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF FINANCE OF MONGOLIA
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE), and the Ministry of Finance of Mongolia (MOF), hereinafter referred to collectively as the "Participants";

Desiring to cooperate to prevent the illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the improvement of technical systems for the detection and identification of these materials at Mongolia's points of entry/exit,

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the MOF technical assistance in the form of equipment and materials, as well as training and services, for use at points of entry/exit in Mongolia as mutually determined by the Participants, for the purpose of detecting and interdicting illicit trafficking in special nuclear material and other radioactive material. As used herein, "special nuclear material" means plutonium, and uranium enriched in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. DOE's technical assistance may include:
 - a. delivery and installation at selected locations in Mongolia mutually determined by the Participants of equipment adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-provided equipment;

- c. training of MOF and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by the DOE;
 - d. technical support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan mutually determined by the Participants; and
 - e. additional areas of cooperation of mutual interest to the DOE and the MOF.
- 3. Upon reasonable request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum of Understanding (Memorandum).
 - 4. DOE and the MOF may conduct technical workshops, consultations, site surveys, engineering surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this Memorandum.
 - 5. The terms of any technical assistance provided under this Memorandum are expected to be set forth in contracts or other written arrangements between the DOE and the MOF or their designated implementing agents.
 - 6. The MOF should endeavor to ensure that equipment and materials provided under this Memorandum are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Mongolia.

II. PROVISION OF INFORMATION

The MOF is to furnish the United States Government, through its representatives (to be designated by DOE) present in Mongolia with data on any detections or seizures of special nuclear material and other radioactive material made as a result of the use of the equipment and materials supplied under this Memorandum.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, the MOF is not to transfer title to, or possession of, any equipment provided by the DOE pursuant to this Memorandum, other than to other bureaus, agencies or departments of the Government of Mongolia.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that no taxes, duties or other charges are to be levied on any equipment, materials, training or services provided at no cost to the Government of Mongolia under this Memorandum.

V. GENERAL PROVISION

The Memorandum represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its designated implementing agents under this Memorandum should be carried out in accordance with the laws and regulations of that Participant's Government and applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE, MODIFICATION, AND DURATION

Implementation of this Memorandum may begin upon signature by both Participants. This Memorandum may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants. If either Participant wishes to end its cooperation under the Memorandum, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at this day of , 2007, in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF
FINANCE OF MONGOLIA:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

October 10, 2007

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

Thomas P. D'Agostino

SUBJECT:

ACTION: Signature of Memorandum of Understanding (MOU)
between DOE and the Ministry of Finance of Mongolia to implement
NNSA's Second Line of Defense Program (Tab A)

ISSUE: To request approval for signature of the MOU.

BACKGROUND: The Second Line of Defense (SLD) Program deploys radiation detection equipment at foreign land borders, airports and seaports to enhance host governments' ability to deter, detect, and interdict illicit trafficking of nuclear and other radioactive materials, including those suitable for use in radiological dispersal devices ("dirty bombs"). Under the proposed MOU, the SLD Program will begin installation of radiation detection equipment at Mongolia's border crossings and airport. Mongolia's geographic position between Russia and China makes it a potential trafficking route for nuclear materials, and therefore it is considered a high priority country for the SLD Program.

In February 2007, the Government of Mongolia requested assistance to strengthen its technical capabilities for import and export controls over nuclear and other radioactive materials through the United Nations' Security Council Committee established pursuant to resolution 1540. Signature of the MOU will permit initiation of the requested assistance.

SENSITIVITIES: None

POLICY IMPACT: None

URGENCY: None

RECOMMENDATION: That you approve delegation of signature of the MOU to Deputy Secretary Sell.

APPROVE:

Samuel C. Bodman

DISAPPROVE: _____

DATE: October 19, 2007



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MEMORANDUM OF UNDERSTANDING
BETWEEN
THE GOVERNMENT OF THE UNITED STATES OF AMERICA
AND
THE GOVERNMENT OF MONGOLIA
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL

The Government of the United States of America and the Government of Mongolia, hereinafter referred to collectively as the "Participants";

Desiring to cooperate to prevent the illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the improvement of technical systems for the detection and identification of these materials at Mongolia's points of entry/exit,

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The Government of the United States of America designates the Department of Energy of the United States of America (DOE) as its implementing agent, and the Government of Mongolia designates the Ministry of Finance of Mongolia (MOF) as its implementing agent, for this Memorandum of Understanding (Memorandum). The DOE, through its National Nuclear Security Administration, may provide the MOF technical assistance in the form of equipment and materials, as well as training and services, for use at points of entry/exit in Mongolia as mutually determined by the DOE and MOF, for the purpose of detecting and interdicting illicit trafficking in special nuclear material and other radioactive material. As used herein, "special nuclear material" means plutonium, and uranium enriched in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. DOE's technical assistance may include:
 - a. Delivery and installation at selected locations in Mongolia mutually determined by the DOE and MOF of equipment adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment);

- b. Delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-provided equipment;
 - c. Training of MOF and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by the DOE;
 - d. Technical support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan mutually determined by the DOE and MOF; and
 - e. Additional areas of cooperation of mutual interest to the DOE and the MOF.
- 3. Upon reasonable request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this Memorandum.
 - 4. DOE and the MOF may conduct technical workshops, consultations, site surveys, engineering surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this Memorandum.
 - 5. The terms of any technical assistance provided under this Memorandum are expected to be set forth in contracts or other written arrangements between the DOE and the MOF or their designated implementing agents.
 - 6. The MOF should endeavor to ensure that equipment and materials provided under this Memorandum are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Mongolia.

II. PROVISION OF INFORMATION

The MOF is to furnish the Government of the United States of America, through its representatives (to be designated by DOE) present in Mongolia with data on any detections or seizures of special nuclear material and other radioactive material made as a result of the use of the equipment and materials supplied under this Memorandum.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, the MOF is not to transfer title to, or possession of, any equipment provided by the DOE pursuant to this Memorandum, other than to other bureaus, agencies or departments of the Government of Mongolia.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that no taxes, duties or other changes are to be levied on any equipment, materials, training or services provided at no cost to the Government of Mongolia under this Memorandum.

V. GENERAL PROVISION

The Memorandum represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its designated implementing agents under this Memorandum should be carried out in accordance with the laws and regulations of that Participant and applicable international agreements to which that Participant is party.

VI. EFFECTIVE DATE, MODIFICATION, AND DURATION

Implementation of this Memorandum may begin upon signature by both Participants. This Memorandum may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants. If either Participant wishes to end its cooperation under the Memorandum, it should endeavor to provide at least 90 days advance written notice to the other Participant.

Signed at Washington this day of , 2007, in duplicate.

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF
MONGOLIA:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

EXEC-2007-011355

October 12, 2007

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR DEPUTY SECRETARY SELL

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT:

ACTION: Your participation in a signing ceremony at the U.S. Department of State on October 23, 2007, with the Mongolian Minister of Finance of a Memorandum of Understanding for implementation of the Second Line of Defense Program

ISSUE: To seek your participation in the signing ceremony.

BACKGROUND: The Second Line of Defense Program is interested in beginning work in Mongolia because of its proximity to countries having special nuclear material. The program has already completed initial surveys of vehicle and railroad crossings on both the Russian and Chinese borders, as well as of the Chinggis Khan International Airport in Ulaanbaatar. Installation of radiation portal monitors can begin once a Memorandum of Understanding (MOU) is signed between the U.S. and Mongolia. This MOU is non-legally binding, and the implementing agencies will be DOE and Mongolia's Ministry of Finance. The government of Mongolia would like to sign this MOU during their President's visit on October 23 in order to 'raise the profile of the visit'. They propose their Minister of Finance, Mr. Namid Bayartsaikhan, as the signer for Mongolia and you would be signing on behalf of the Department.

On October 23, a delegation from Mongolia, including the President, Foreign Minister, Minister of Finance, Minister of Trade and Industry, and Minister of Energy will be at the State Department to sign several agreements. To take advantage of this high-level gathering, we are proposing that the Second Line of Defense MOU be signed by you and the Mongolian Minister of Finance at this event. At 10:30am, Mongolian President Nambaryn Enkhbayar will sign the Millenium Challenge Corporation Compact with Secretary Rice, which will provide \$280 million over 5 years to Mongolia for a variety of development projects. Following this, at about 11:00, but in the presence of the same assembled group, State is planning to have two additional agreements signed: (1) a general Declaration of Principles concerning bilateral cooperation between the U.S. and Mongolia in several areas, (2) an MOU from the Proliferation Security Initiative concerning ship boarding rights and, (3) the MOU on the



Second Line of Defense Program. The signing ceremony will take place on the 8th floor in the Benjamin Franklin room (Ideally, you would attend the entirety of the ceremony, from 10:30am to about 11:15am).

SENSITIVITIES: None.

POLICY IMPACT: This would allow work to begin on the Second Line of Defense Program in Mongolia to provide radiation detection equipment at border crossings to detect the illicit trafficking in nuclear and radiological materials.

URGENCY: Because the documents for signing must be prepared in advance.

RECOMMENDATION: That you participate in the October 23, 2007, signing ceremony of the Second Line of Defense Memorandum of Understanding at the Department of State.

APPROVE: Clay Sell,

DISAPPROVE: _____

DATE: 10/18/2007

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF HOUSING OF THE KINGDOM OF SPAIN
ON
COLLABORATION IN ORGANIZING A SOLAR DECATHLON IN EUROPE**

This Memorandum of Understanding (MOU) is a non-binding expression of intent between the Department of Energy of the United States of America (DOE) and the Ministry of Housing of the Kingdom of Spain (the "Housing Ministry") to collaborate in the development of a successful solar decathlon competition event in Europe. The DOE and Housing Ministry may each be referred to individually as a "Participant" and together as the "Participants."

WHEREAS, the Governments of the United States of America and the Kingdom of Spain have a common goal in fostering sustainable economic development while encouraging the use of renewable energy sources;

WHEREAS, DOE's Solar Decathlon is an international competition designed to promote the design of houses that are energy efficient and self-reliant in energy usage;

WHEREAS, the Technical University of Madrid has participated in two editions of the Solar Decathlon (2005 and 2007) in the United States and found the experience to be richly rewarding, not only for the new relationships built with the other participating universities, but also as an opportunity for further investigation in the field which benefited all involved;

WHEREAS, the Government of Spain, through the Housing Ministry, has declared its interest in holding a similar Solar Decathlon event in Europe that will integrate unique local and regional characteristics while utilizing the same philosophy, principles, and models now in place in the United States; and

WHEREAS, the DOE as the founder, designer and organizer of Solar Decathlon, possesses the experience and know-how necessary to organize a "Solar Decathlon Europe" to take place in Spain and wishes to collaborate with the Housing Ministry in such an endeavor.

NOW, THEREFORE, the Participants have reached the following understanding:

ARTICLE 1

Objective

1. The objective of this MOU is to establish a framework for collaboration between the Participants regarding the organization of a European edition of the Solar Decathlon to take place in Spain.
2. The Participants intend to collaborate on the basis of mutual benefit and an open and reciprocal exchange of information on all aspects necessary to ensure a successful Solar Decathlon competition.


ARTICLE 2

Collaborative Activities

1. DOE has determined to license to the Housing Ministry, under appropriate terms and conditions and for a period of five years, the rights it has in the mark SOLAR DECATHLON for the "Solar Decathlon Europe" events in Spain.
2. The first "Solar Decathlon Europe" is expected to take place in 2010, with a call for applicants in 2008. A second would take place in 2012.
3. All editions of a "Solar Decathlon Europe" are expected to take place in a different year than the Solar Decathlon in the United States.
4. Exchange of information between the Participants may include, but is not limited to, rules, scoring, judging, officiating, safety, site selection and team selection.

ARTICLE 3

Management and Funding

- 
1. To ensure effective implementation and oversight of this MOU, the Participants intend to establish an Oversight Committee consisting of up to six members, with each Participant nominating up to three individuals to serve on this body.
 2. The Oversight Committee should provide periodic reports to the Participants on progress and plans, including a final report summarizing the success of the first "Solar Decathlon Europe" event. Final approval of plans and activities, and any future plans for subsequent competitions developed by the Oversight Committee, are the responsibility of the Participants.
 3. Except as may otherwise be determined in writing, all costs resulting from cooperation under this MOU are the responsibility of the Participant that incurs the cost.

ARTICLE 4

Commencement, Modification, and Termination

Cooperation under this MOU may commence upon signature and continue for five years. The MOU may be modified at any time by mutual determination of the Participants in writing. If either Participant desires to end its cooperation under this MOU, it should endeavor to provide 120 days advance written notice to the other Participant.

Signed at Washington the 18 day of October, 2007, in duplicate.


FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:


FOR THE MINISTRY OF HOUSING
OF THE KINGDOM OF SPAIN:

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE MINISTRY OF HOUSING OF THE KINGDOM OF SPAIN
AND
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
ON
COLLABORATION IN ORGANIZING A SOLAR DECATHLON IN EUROPE**

This Memorandum of Understanding (MOU) is a non-binding expression of intent between the Ministry of Housing of the Kingdom of Spain (the "Housing Ministry") and the Department of Energy of the United States of America (DOE) to collaborate in the development of a successful solar decathlon competition event in Europe. The Housing Ministry and DOE may each be referred to individually as a "Participant" and together as the "Participants."

WHEREAS, the Governments of the Kingdom of Spain and the United States of America have a common goal in fostering sustainable economic development while encouraging the use of renewable energy sources;

WHEREAS, DOE's Solar Decathlon is an international competition designed to promote the design of houses that are energy efficient and self-reliant in energy usage;

WHEREAS, the Technical University of Madrid has participated in two editions of the Solar Decathlon (2005 and 2007) in the United States and found the experience to be richly rewarding, not only for the new relationships built with the other participating universities, but also as an opportunity for further investigation in the field which benefited all involved;

WHEREAS, the Government of Spain, through the Housing Ministry, has declared its interest in holding a similar Solar Decathlon event in Europe that will integrate unique local and regional characteristics while utilizing the same philosophy, principles, and models now in place in the United States; and

WHEREAS, the DOE as the founder, designer and organizer of Solar Decathlon, possesses the experience and know-how necessary to organize a "Solar Decathlon Europe" to take place in Spain and wishes to collaborate with the Housing Ministry in such an endeavor.

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 2. The Oversight Committee should provide periodic reports to the Participants on progress and plans, including a final report summarizing the success of the first "Solar Decathlon Europe" event. Final approval of plans and activities, and any future plans for subsequent competitions developed by the Oversight Committee, are the responsibility of the Participants.
 3. Except as may otherwise be determined in writing, all costs resulting from cooperation under this MOU are the responsibility of the Participant that incurs the cost.

ARTICLE 4

Commencement, Modification, and Termination

Cooperation under this MOU may commence upon signature and continue for five years. The MOU may be modified at any time by mutual determination of the Participants in writing. If either Participant desires to end its cooperation under this MOU, it should endeavor to provide 120 days advance written notice to the other Participant.

Signed at Washington the 17 day of October, 2007, in duplicate.

FOR THE MINISTRY OF HOUSING
OF THE KINGDOM OF SPAIN:



FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:



**The Secretary of Energy****Washington, D.C. 20585**

November 26, 2007

Her Excellency Carme Chacón Piqueras
Minister of Housing
Ministry of Housing
Paseo de la Castellana, 112
28071 Madrid, Spain

Dear Madam Minister:

Thank you for your October 3, 2007, letter regarding the Solar Decathlon in Europe. I am sorry you were not able to attend the signing ceremony for the *Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Housing of the Kingdom of Spain on Collaboration in Organizing a Solar Decathlon in Europe* (MOU), but appreciate your strong support for a European event. On behalf of the U.S. Department of Energy, we are excited about expanding the benefits of the Solar Decathlon to Europe.

On October 18, 2007, Assistant Secretary for Energy Efficiency and Renewable Energy Alexander A. Karsner signed the MOU with the Undersecretary of Housing Fernando Magro (copy enclosed). We believe the MOU sets forth the working relationship that will lead to a successful Solar Decathlon in Europe.

The signing ceremony for the MOU was conducted on the National Mall in front of the University of Madrid's house that was competing in this year's Solar Decathlon. The ceremony was very successful and a highlight of the week. I would like to take this opportunity to congratulate the Kingdom of Spain for the wonderful effort the University of Madrid showed in the Solar Decathlon. Their fifth place finish earned them one of the top spots in the competition – a remarkable accomplishment for their first year participating in the Solar Decathlon.

Thank you for your interest in the Solar Decathlon. We look forward to working with you in the future.

Sincerely,

A handwritten signature in black ink, reading "Samuel W. Bodman". The signature is fluid and cursive, with the first name "Samuel" and last name "Bodman" clearly legible.

Samuel W. Bodman

Enclosure



Printed with soy ink on recycled paper

AGREEMENT
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF ECONOMIC DEVELOPMENT
OF THE ITALIAN REPUBLIC
IN THE FIELD OF ENERGY RESEARCH AND DEVELOPMENT

Whereas the Government of the United States of America and the Government of the Italian Republic are parties to the Agreement for Scientific and Technological Cooperation of April 1, 1988, as amended and extended (the "S&T Agreement");

Whereas the United States Department of Energy and the Ministry of Industry, Commerce and Handicraft of the Italian Republic concluded a Memorandum of Understanding in the field of Energy Research and Development on December 5, 1985, including the May 2, 1990, Implementing Agreements on energy policy consultations and enhanced joint collaboration and exchange of information (hereinafter "the 1985 Agreement"), which expired on December 5, 1991;

Whereas the United States Department of Energy and the Ministry of Industry, Commerce and Handicraft of the Italian Republic concluded a Memorandum of Understanding in the field of Energy Research and Development on May 26, 1995, on energy policy consultations and enhanced joint collaboration and exchange of information (hereinafter "the 1995 Agreement"), which expired on May 26, 2005;

Whereas the United States Department of Energy (hereinafter "DOE") and the Ministry of Economic Development of the Italian Republic (hereinafter "MSE") (collectively hereinafter "the Parties") believe that the cooperative activities in the field of research and development, information exchange and consultation on

energy policy undertaken pursuant to the 1985 Agreement, the 1990 Implementing Agreements, and the 1995 Agreement were mutually beneficial;

Whereas the Parties have a common interest in continuing activities undertaken pursuant to the 1985 Agreement, the 1990 Implementing Agreements, and the 1995 Agreement, and in undertaking new cooperative activities in the field of energy research and development;

Now therefore the Parties agree as follows:

ARTICLE I

1. The objective of cooperation under this Agreement is to:
 - continue, for the mutual benefit of the Parties, the balanced exchange of energy technology information related to various energy fields, such as clean coal energy, hydrogen, nuclear energy, bio-energy, and other basic energy sciences;
 - conduct related joint research and development and joint planning activities which will be further defined in project annexes to this Agreement; and
 - continue periodic bilateral energy policy consultations through annual meetings of subcommittees in any of the planned activities as defined in the annexes to this Agreement.
2. This Agreement is subject to and governed by the S&T Agreement.

ARTICLE II

Cooperation under this Agreement may include, but is not limited to the following:

1. Exchange of scientific and technical information, and results and methods of research and development on a periodic basis in a manner agreed to by the Coordinators designated by Article III;
2. Organization of seminars and other meetings on agreed energy topics in the areas enumerated in Article I in a manner agreed to by the Coordinators;

3. Survey visits by specialists of a Party to the energy research facilities or projects of the other Party at the invitation of the host institution;
4. Exchange of materials, instruments, components, and equipment for testing;
5. Exchange of personnel for participation in agreed research, development, demonstration, analysis, design, experimental, and training activities;
6. Joint projects in the form of experiments, tests, design analysis, or other technical collaborative activity;
7. Joint funding of specific research and development projects which may be undertaken in connection with other qualified organizations or persons in a manner agreed to by the Coordinators;
8. Joint funding of specific demonstration activities and dissemination of the results of such projects; and
9. Other such forms of cooperation as may be proposed and jointly agreed in writing by the Parties.

ARTICLE III

1. A Coordinator shall be designated by each Party to supervise the implementation of this Agreement. As mutually agreed, the Coordinators shall meet to evaluate all aspects of the cooperation under this Agreement. These meetings shall be held alternately in the United States and Italy.
2. Under the direction of the Parties, the Coordinators shall approve and monitor all cooperative activities to be carried out under this Agreement.
3. The Coordinators shall review and evaluate any newly proposed activities and the status of cooperation under this Agreement. They also shall give appropriate guidance and directions to working groups, as defined in Article III, paragraph 4, and to the project managers of activities developed under this Agreement. If so requested, the Coordinators may give advice to the Parties regarding the progress and future of the cooperative activities established under this Agreement.

4. The Coordinators shall, as necessary and appropriate, establish informal working groups in any of the areas of cooperation under this Agreement to facilitate implementation of projects which may be undertaken in those areas.
5. At least annually, the Coordinators shall advise the Coordinator for the S&T Agreement of the status of cooperative activities undertaken under this Agreement.

ARTICLE IV

1. Proposals for cooperation under this Agreement may be presented by either Party or its designated representatives to the Coordinators for approval.
2. Each cooperative activity identified in Article II, paragraphs 4-8 which is approved by the Coordinators shall be described in writing in a Project Annex to this Agreement. Such Annexes shall contain detailed procedures for the implementation of the cooperative activity, including but not limited to the contributions by each Party (costs and cost-sharing), schedules, and responsibilities of each Party.
3. Each Project Annex concluded by the Parties shall be subject to and refer to this Agreement.

ARTICLE V

The following provisions shall apply concerning exchanges of equipment pursuant to this Agreement:

1. By mutual agreement, a Party may provide equipment to be utilized in a joint activity. In such case, the sending Party shall supply to the host Party, as soon as possible, a detailed list of the equipment to be provided, together with the relevant specifications and appropriate technical documentation related to the use, maintenance, and repair of the equipment.
2. Title to the equipment and necessary spare parts supplied by the sending Party to the host Party for use in joint activities shall remain in the sending Party, and

the property shall be returned to the sending Party upon completion of the joint activity, unless otherwise agreed.

3. Equipment provided pursuant to this Agreement shall be brought into operation at the host establishment only by agreement of the Parties.
4. The host establishment shall provide the necessary premises for the equipment, shall provide for utilities such as electric power, water, and gas, and normally shall provide materials to be tested, in accordance with the agreed technical requirements.
5. The responsibility and expenses for the transport of equipment and materials from the United States of America by plane or ship to an authorized port of entry in Italy convenient to the ultimate destination, and also responsibility for its safekeeping, and insurance en route, shall rest with DOE.
6. The responsibility and expenses for the transport of equipment and materials from Italy by plane or ship to an authorized port of entry in the United States of America convenient to the ultimate destination, and also responsibility for its safekeeping and insurance en route, shall rest with Italian organizations designated by MSE for each Annex.
7. Equipment provided pursuant to this Agreement for use in joint activities shall be considered to be scientific, not having a commercial character.

ARTICLE VI

The following provisions shall apply concerning assignments or exchanges of personnel under this Agreement:

1. Whenever an assignment or exchange of personnel is contemplated, each Party shall ensure the selection of qualified personnel with skills and competence necessary to conduct the activities planned under this Agreement. Each such assignment or exchange of personnel shall be mutually agreed in advance by an exchange of letters between the Parties, referencing this Agreement and its pertinent intellectual property provisions.

2. The sending Party shall be responsible for the salaries, insurance, and allowances to be paid to its staff or its contractors.
3. The sending Party shall pay for the travel and living expenses of its staff or its contractors when staying at the establishment of the host Party, unless otherwise agreed.
4. The host Party shall help locate adequate accommodations for the sending Party's staff or its contractors (and their families) on a mutually agreeable reciprocal basis.
5. The host Party shall provide all necessary assistance to the staff of the sending Party or its contractors as regards administrative formalities, such as making travel arrangements.
6. The sending Party shall inform its staff and contractors of the need to conform to the general rules of work and safety regulations in force at the host establishment.

ARTICLE VII

1. Unless otherwise agreed, all costs resulting from cooperation pursuant to this Agreement shall be the responsibility of the Party that incurs them.
2. Each Party shall conduct the activities provided for in this Agreement, and its Annexes, subject to its applicable laws and regulations; activities under and pursuant to this Agreement and Annexes shall be subject to the availability of appropriated funds.

ARTICLE VIII

All information, material or equipment transferred under this Agreement and any related Annex shall be appropriate and accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information, material or equipment transmitted for any particular use or application by the receiving Party or any third party. Information, material or equipment developed jointly by the Parties shall be

appropriate and accurate to the best knowledge and belief of the developing Parties. No Party warrants the accuracy of the jointly developed information or the suitability of the material or equipment for any particular use or application by either Party or by any third party.

ARTICLE IX

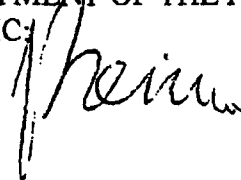
1. This Agreement shall enter into force upon signature and shall remain in force for five (5) years. The Agreement shall be renewed automatically for one additional 5-year period unless either Party informs the other in writing at least six (6) months prior to the date of expiration.
2. This Agreement may be amended or extended by written agreement of the Parties.
3. This Agreement may be terminated upon one (1) year's advance notification in writing by either Party.
4. All joint efforts and experiments not completed at the expiration or termination of this Agreement may be continued until their completion under the terms of this Agreement.

DONE at Rome, this 13th day of November, 2007, in duplicate in the English language, which shall be the authentic text. A translation of the Agreement into the Italian language shall be prepared by MSE, which shall be considered equally authentic upon an exchange of letters between the Parties confirming its conformity with the English language text.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:



FOR THE MINISTRY OF ECONOMIC
DEVELOPMENT OF THE ITALIAN
REPUBLIC:



MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF FOREIGN AFFAIRS AND TRADE OF
THE REPUBLIC OF KOREA
FOR COOPERATION ON
THE GLOBAL THREAT REDUCTION INITIATIVE

The Department of Energy of the United States of America ("DOE") and the Ministry of Foreign Affairs and Trade of the Republic of Korea ("MOFAT"), hereinafter referred to as the "Participants";

SEEKING to promote the nonproliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968;

NOTING the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Ukraine for Emergencies and Affairs of Population Protection from the Consequences of the Chornobyl Catastrophe Concerning Cooperation to Enhance the Security of Ukraine's Disused Sources of Ionizing Radiation of May 26, 2005;

SHARING a concern to enhance the physical security of nuclear and other radioactive materials to prevent their acquisition by terrorists; and

GUIDED by the mutual desire to cooperate with each other to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials, in accordance with the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

HAVE REACHED THE FOLLOWING UNDERSTANDING:

I OBJECTIVE

1. The objective of this Memorandum of Understanding (hereinafter "Memorandum") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation projects, initially in Russia and then in other countries, including those of the former Soviet Union, to address non-proliferation, disarmament, counter-terrorism and nuclear security issues, including threats posed by vulnerable, high-risk nuclear and other radioactive materials.
2. The Participants recognize that vulnerable high-risk nuclear and other radioactive materials in countries of the former Soviet Union and in other countries around the world constitute a proliferation threat, and, in furtherance of their Global Partnership commitments, the Participants intend to cooperate pursuant to this Memorandum to strengthen the capabilities of those countries to identify, secure, remove and/or facilitate the disposition of those materials.

II SCOPE

1. DOE, on behalf of the Government of the United States of America, is providing technical assistance through the DOE/National Nuclear Security Administration's Global Threat Reduction Initiative (GTRI) to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials in countries around the world.
2. MOFAT, for the Government of the Republic of Korea, intends to make a financial contribution to DOE in calendar year 2007, under this Memorandum in the amount of US\$250,000 (the "Contribution"), for use by DOE in support of GTRI's technical assistance to Ukraine, primarily for enhancing security of high-risk radioactive materials through the removal of unused radiological sources from the Ukrainian National Academy of Sciences Institute of Physics in Kyiv, Ukraine to a secure consolidated radiological storage facility (the "Cooperation Project").
3. Cooperation under this Memorandum is limited to the Cooperation Project, and DOE intends to use all funds contributed by MOFAT under this Memorandum exclusively for that purpose.

III FINANCIAL ARRANGEMENTS

1. MOFAT intends to pay the Contribution in one lump sum to DOE's account at the Federal Reserve Bank of New York, in accordance with arrangements determined by the Participants.

2. In the event any portion of the Contribution is not used within five (5) years of its receipt by DOE, DOE intends to return to MOFAT the unused portion of said Contribution.
3. DOE intends to keep accounts and records of the costs of the Cooperation Project, including all expenditures or commitments and intends to comply with its relevant regulations and with generally accepted accounting principles, including those related to audits.
4. DOE intends to provide to MOFAT monthly written updates on the Cooperation Project, until the Contribution has been fully disbursed. In addition, DOE intends to provide to MOFAT an annual summary progress report of the Cooperation Project until the Contribution has been fully disbursed.
5. DOE intends to allow, with reasonable notice, MOFAT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the Cooperation Project, for a period of three years after disbursement of the Contribution is completed. MOFAT understands that DOE may remove from its audits any information that DOE may be required to protect under U.S. law.

IV SOURCE OF FUNDS

For the duration of the Cooperation Project, DOE intends to provide to MOFAT a copy of the United States Secretary of Energy's annual report to the United States Congress's defense committees regarding international contributions to the Global Threat Reduction Initiative.

V POINTS OF CONTACT

For purposes of facilitating communication under this Memorandum, MOFAT hereby designates:

Director
Disarmament and Non-Proliferation Division
Ministry of Foreign Affairs and Trade
37 Sejongno, Jongno-gu
Seoul, Republic of Korea, 110-787

as its point of contact.

For the same purposes DOE designates:

Executive Officer
Office of Global Threat Reduction (NA-21)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

as its point of contact.

VI ENTRY INTO EFFECT, MODIFICATION AND TERMINATION

1. This Memorandum is not intended to create any legally binding rights or obligations.
2. This Memorandum may enter into effect upon signature by both Participants.
3. This Memorandum may be modified by mutual consent of the Participants in writing. Any such modification may take effect upon signature by the Participants.
4. The Participants do not intend this Memorandum to continue in operation after the Cooperation Project (as specified in paragraph II) is completed.

Signed at this day of , 2007, in duplicate.


FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF
FOREIGN AFFAIRS AND TRADE OF
THE REPUBLIC OF KOREA:

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF AGRICULTURE
AND
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE NATIONAL DEVELOPMENT AND REFORM COMMISSION
OF THE PEOPLE'S REPUBLIC OF CHINA
ON COOPERATION IN THE DEVELOPMENT OF BIOFUELS**

The Department of Agriculture (USDA) and the Department of Energy (DOE) of the United States of America, acting jointly, and the National Development and Reform Commission (NDRC) of the People's Republic of China, hereinafter the "Participants",

Acknowledging that developing fuels that utilize biomass resources is an important way to significantly reduce fossil fuel consumption, promote the agricultural sector, and support rural development,

Recognizing the important role played by other government entities in both countries in the area of biofuels development, and the benefits expected from their potential collaboration in any future projects covered by this Memorandum of Understanding (MOU), in pursuit of enhancing long-term cooperation between the United States of America and the People's Republic of China (hereinafter "China") in the development of biofuels, and

Desiring to cooperate on the basis of equality, reciprocity and mutual benefit,

Have reached the following understanding:

1. SCOPE OF COOPERATION

The Participants intend to cooperate with each other in the field of biofuels and biochemical products on the basis of equality, reciprocity and mutual benefit. Cooperation may include, but is not limited to the scientific, technical and policy aspects of: biomass and feedstock production and sustainability, biomass and feedstock conversion technology and engineering, bio-based product development and utilization standards, and rural and agricultural development strategies.

2. SUBJECTS OF COOPERATION

The Participants intend to develop a work plan to define the scope of their proposed collaborative activities under this MOU. The work plan may be revised as mutually determined by the Participants.

Specific areas of cooperation to be included in this work plan may include, but are not limited to:

First: establishment of the methodology and index system for a biomass resource assessment suitable for conditions in both countries, and the formulation of a unified assessment standard.

Second: exchange of scientific and technical information on the development of biomass feedstock production (including breeding and planting technologies of quality feedstock seeds), feedstock-to-biofuels conversion processes; and cellulosic ethanol technology.

Third: technical information exchange on biofuels and biochemicals.

Fourth: strategic studies on promoting agricultural development for biomass feedstock on a voluntary basis.

Fifth: exchange of technical information on the rural development aspects of biofuels development in China and the United States.

Sixth: establishment of a bilateral dialogue on biofuels, focusing discussion on United States-China biofuels cooperation, capacity building, and information exchange.

3. JOINT WORKING GROUP

The Participants intend to establish a Joint Working Group composed of representatives from USDA, DOE and NDRC. Each Participant is to identify a point of contact responsible for coordination. The Joint Working Group should review the work plan on an annual basis. However, when such a meeting can not be arranged, changes to the work plan may also be made in writing by mutual determination.

4. PARTICIPATING ORGANIZATIONS

The offices designated to coordinate cooperation under this MOU are the USDA Foreign Agricultural Service, the DOE's Office of Energy Efficiency and Renewable Energy, and the NDRC Department of International Cooperation. NDRC plans to coordinate the participation of other Chinese Government ministries under this MOU. The USDA and DOE plan to coordinate the participation of other United States Government agencies under this MOU.

5. GENERAL

Cooperative activities to be conducted under this MOU may be set out in greater detail by the Participants in writing in subsequent implementing arrangements. Each Participant should bear the costs of its participation in all cooperative activities carried out under this MOU unless the Participants establish other arrangements in writing.

Each Participant's participation in the cooperative activities under this MOU is subject to the availability of funds, resources, and personnel and is to be conducted in accordance with the laws and regulations of that Participant's government.

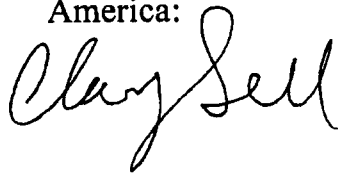
This MOU does not create any legally binding obligations between the Participants.

Cooperation under this MOU may commence from the date of signature. This MOU may be revised by mutual determination of the Participants in writing. A Participant should endeavor to give the other Participants at least 6 months notice of its intention to end its cooperation under the MOU and the Participants should continue to work together to conclude specific cooperative projects already in progress.

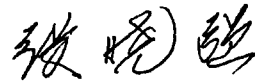
Signed in Beijing, this 11th day of December, 2007, in duplicate in the English and Chinese languages.

For the
Department of
Agriculture of the
United States of
America:

For the
Department of Energy of
The United States of
America:

A handwritten signature in black ink, appearing to read "Clay Sell".

For the
National Development
and Reform
Commission of the
People's Republic of
China:

A handwritten signature in black ink, appearing to be in Chinese characters, likely "张晓明" (Zhang Xiaoli).

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF THE INTERIOR OF THE UNITED ARAB EMIRATES
CONCERNING
COOPERATION TO PREVENT
THE ILLICIT TRAFFICKING IN NUCLEAR AND OTHER
RADIOACTIVE MATERIAL**

The Department of Energy of the United States of America and the Ministry of the Interior of the United Arab Emirates, hereinafter referred to collectively as the "Participants";

Desiring to strengthen international security through improvements in measures to prevent illicit trafficking of nuclear and other radioactive material; and

Recognizing the high volume of trade between seaports of the United Arab Emirates and those of the United States of America;

Have reached the following understanding:

**Article One
Definitions**

For purposes of this Memorandum of Understanding ("Memorandum"), "special nuclear material" means plutonium, and uranium enriched to 20% or more in the isotope U-235.

"Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.

**Article Two
Scope of Cooperation**

1. The U.S. Department of Energy, through its National Nuclear Security Administration, may provide technical assistance, at no cost to the Government of the United Arab Emirates, in the form of equipment and materials, as well as training and services, for the United Arab Emirates' use at seaports in the United Arab Emirates (other than the Ports of Dubai) as mutually determined by the Participants, for the purpose of detecting and interdicting illicit trafficking in nuclear and other radioactive material.

2. The U.S. Department of Energy's technical assistance may include:
 - a. delivery and installation at terminal facilities in the ports of the United Arab Emirates as the Participants mutually determine, of systems and equipment adapted as appropriate for customs control conditions (including testing, setup and demonstration of the equipment);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain reliable functioning of the systems and equipment;
 - c. training of appropriate United Arab Emirates personnel in the detection of special nuclear material and other radioactive material, and in the proper use and maintenance of the systems and equipment provided by the U.S. Department of Energy;
 - d. technical support for maintenance of the systems and equipment provided by the U.S. Department of Energy, as set forth in a maintenance and sustainability plan mutually determined by the Participants; and
 - e. additional areas of cooperation of mutual interest.
3. Upon reasonable request by the U.S. Department of Energy, representatives of the U.S. Department of Energy may make technical evaluations of the systems and equipment supplied under this Memorandum for a period of three years starting from the deployment date of the equipment.
4. Representatives of the U.S. Department of Energy and the Ministry of the Interior of the United Arab Emirates may conduct training workshops, consultations, site surveys, technical evaluations and acceptance testing of materials and installed systems and equipment. Joint working groups of technical experts may be formed to exchange technical information and to make suitable proposals on technical and training matters to ensure the effective implementation of this Memorandum.
5. The Government of the United Arab Emirates undertakes to ensure that systems and equipment provided under this Memorandum are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in the United Arab Emirates.

Article Three **Submission of Data**

The Government of the United Arab Emirates is to furnish the United States Government, through its representatives (to be designated by the U.S. Department of Energy) present in the United Arab Emirates and in a format and according to a schedule to be determined by the Participants, with data on detections or seizures of special

nuclear material and of other radioactive material made as a result of the use of the systems and equipment supplied under the Memorandum.

Article Four
Use of Systems and Data

1. Unless the written consent of the U.S. Department of Energy has first been obtained, the Ministry of the Interior of the United Arab Emirates should not transfer title to, or possession of, any systems or equipment provided by the U.S. Department of Energy pursuant to this Memorandum, other than to ministries, bureaus, agencies or departments within the Government of the United Arab Emirates.
2. Each Participant may use the data, including data and information provided to its appropriate control authorities, without advance notification to the other Participant.

Article Five
Taxes and Customs Treatment

The Participants understand that the U.S. Department of Energy and its implementing agents are not to pay any taxes, duties or other charges on the systems, equipment, training or services provided by the U.S. Department of Energy under this Memorandum.

Article Six
**Relationship among the Memorandum, National Legislation
and International Agreements**

All activities of each Participant and its implementing agents under this Memorandum should be carried out in accordance with the laws and regulations of that Participant's Government and applicable international agreements to which that Participant's Government is party.

Article Seven
General Provisions

1. Implementation of this Memorandum may begin on January __, 2008.
2. This Memorandum may be modified in writing by the Participants' mutual consent. Any such modification may take effect upon signature by the Participants.
3. If either Participant wishes to end its cooperation under the Memorandum, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at this
Arabic languages.

day of January, 2008, in duplicate, in the English and

FOR THE DEPARTMENT OF ENERGY OF
THE UNITED STATES OF AMERICA:

FOR THE MINISTRY OF THE
INTERIOR OF THE UNITED ARAB
EMIRATES:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585
January 11, 2008

EXEC-2008-000446

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT:

ACTION: Signature of Memorandum of Understanding (MOU) between DOE and the Ministry of the Interior of the United Arab Emirates (UAE) to implement NNSA's Second Line of Defense Program (Tab A)

ISSUE: To request your signature of this MOU at the signing ceremony with the UAE's Minister of the Interior scheduled for January 21, 2008 in the UAE. In the event of a scheduling conflict, approval is requested for me or my delegate to sign the MOU at a mutually convenient future date.

BACKGROUND: The Second Line of Defense (SLD) Program deploys radiation detection equipment at foreign land borders, airports and seaports to enhance host governments' ability to deter, detect, and interdict illicit trafficking of nuclear and other radioactive materials, including those suitable for use in radiological dispersal devices ("dirty bombs"). Under the proposed MOU, the SLD Program will begin installation of radiation detection equipment at the Port of Khor Fakkan, which is an important port in a region of significant importance to the United States.

SENSITIVITIES: None.

POLICY IMPACT: None.

URGENCY: A signing ceremony is planned in the UAE for January 21, 2008.

RECOMMENDATION: That you sign the MOU at the planned January 21, 2008 signing ceremony with the UAE's Minister of the Interior; or, alternatively, authorize NNSA Administrator Tom D'Agostino or his delegate to sign the MOU with the appropriate UAE government official at a mutually convenient future date.



CONCURRENCES: GC

David R. Hill

1/09/2008

APPROVE:

SW Badman

DISAPPROVE:

DATE:

1/14/08

Attachment:

Tab A: Proposed Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE ESTONIAN TAX AND CUSTOMS BOARD
CONCERNING
COOPERATION TO PREVENT ILLICIT TRAFFICKING IN NUCLEAR AND
OTHER RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE) and the Estonian Tax and Customs Board (ETCB), hereinafter referred to collectively as the "Participants":

Desiring to cooperate to prevent illicit trafficking in nuclear and other radioactive material through technical and methodological cooperation, including the installation or improvement of technical systems for the detection and identification of these materials at points of entry/exit in the Republic of Estonia (hereinafter referred to as Estonia);

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide the ETCB technical assistance, at no cost, in the form of equipment and materials, as well as training and services, for ETCB's use to detect and interdict illicit trafficking in special nuclear material and other radioactive material at points of entry/exit in Estonia jointly selected by the DOE and ETCB. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. Each Participant may, following written notification to the other Participant, delegate responsibilities for the implementation of this Memorandum of Understanding (MOU) to other ministries or agencies of its respective government.
3. DOE's technical assistance may include:
 - a. delivery and installation at selected seaports, airports, land border crossings and other facilities jointly determined by the Participants, of equipment adapted as appropriate for conditions at customs control posts and other selected locations in Estonia (including testing, setup, and demonstration of the equipment);

- b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-supplied equipment;
 - c. support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan jointly determined by the Participants;
 - d. training of ETCB personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE; and
 - e. additional areas of cooperation of mutual interest to DOE and ETCB .
- 4. Upon request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this MOU.
 - 5. DOE and the ETCB may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
 - 6. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and the ETCB or their designated implementing agents.
 - 7. The ETCB should assist DOE to ensure the prompt delivery to their ultimate destination in Estonia of equipment and materials provided under this MOU, acceptance of the design drawings, and access to border posts and technical drawings of the border post infrastructure. If in the process of installation of DOE-provided equipment Estonian agencies other than ETCB or private entities are involved, ETCB should assist DOE with obtaining any needed approvals.

II. PROVISION OF INFORMATION

The ETCB is to furnish the Government of the United States of America, through its representatives (to be designated by DOE) present in Estonia and in a format and according to a schedule to be determined by the Participants, with data on detections or seizures of special nuclear material and of other radioactive material made as a result of the use of the equipment and materials supplied under the MOU.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, the ETCB should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than to ministries, agencies, departments or other instrumentalities of the Government of Estonia.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided under this MOU. Implementation of this provision is to be undertaken in accordance with Estonian law.

V. GENERAL PROVISION

This MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU may begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modifications may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at Narva the day of , 2008, in duplicate in the English and Estonian languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE ESTONIAN TAX AND
CUSTOMS BOARD:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585
February 19, 2008

EXEC-2008-002077

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT:

ACTION: Signature of the Memorandum of Understanding (MOU)
between DOE and the Estonian Tax and Customs Board Concerning
Cooperation to Prevent Illicit Trafficking in Nuclear and Other
Radioactive Material

ISSUE: To request approval for signature of the MOU.

BACKGROUND: The MOU will implement NNSA's Second Line of Defense (SLD) Program, which installs radiation detection portal monitors and associated communications equipment at host governments' border crossings, airports, and seaports, and provides training of host government customs officers and other personnel in the use and sustainability of the installed equipment. SLD, which has been providing maintenance support on detection equipment deployed by the Department of State, is ready to begin deployment of detection equipment at additional border crossings in Estonia, and to upgrade communications equipment. Estonia's geographic position makes it a potential trafficking route for nuclear materials, and is therefore considered a high priority country for the SLD Program.

SENSITIVITIES: None.

POLICY IMPACT: None.

URGENCY: The anticipated signature date is February 25, 2008, at the offices of the Estonian Tax and Customs Board in Tallinn.

RECOMMENDATION: That you approve signature of the attached MOU. It is contemplated that the U.S. Ambassador to Estonia will sign the MOU on behalf of DOE.

CONCURRENCES: General Counsel - E.Fygi f/D.Hill 2/7/08

APPROVE:

DISAPPROVE:

DATE:

FEB 21 2008

Attachment



MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE DEPARTMENT OF BUSINESS ENTERPRISE AND REGULATORY
REFORM OF
THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
FOR COOPERATION ON
NONPROLIFERATION ASSISTANCE

The Department of Energy of the United States of America ("DOE") and the Department of Business Enterprise and Regulatory Reform of the United Kingdom of Great Britain and Northern Ireland ("BERR"), hereinafter referred to as the "Participants";

SEEKING to promote the nonproliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968;

SHARING a concern to enhance the physical security of nuclear and other radioactive materials to prevent their acquisition by terrorists; and

GUIDED by the mutual desire to cooperate with each other to detect and deter the illicit trafficking in nuclear and other radioactive material across international borders, and to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials, in accordance with the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002;

HAVE REACHED THE FOLLOWING UNDERSTANDING:

I OBJECTIVE

1. The objective of this Memorandum of Understanding (hereinafter "Memorandum") is to facilitate cooperation between the Participants to address non-proliferation, disarmament, counter-terrorism and nuclear security issues, including threats posed by vulnerable, high-risk nuclear and other radioactive materials through specific cooperation projects.
2. The Participants recognize that vulnerable high-risk nuclear and other radioactive materials in countries of the former Soviet Union and in other countries around the world constitute a proliferation threat, and, in furtherance of the objective of this Memorandum, the Participants intend to cooperate to strengthen the capabilities of those countries to identify, secure, remove and/or facilitate the disposition of those materials; and to detect and deter nuclear smuggling across their borders.

II SCOPE

1. DOE, on behalf of the Government of the United States of America, is providing technical assistance through its National Nuclear Security Administration, to:
 - (a) identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive material in countries around the world (Global Threat Reduction Initiative [GTRI]);
 - (b) detect and deter illicit trafficking of nuclear and other radioactive material by providing countries around the world with radiation detection and related communications equipment to secure their land borders, seaports, and airports (Second Line of Defense Program [SLD]).
2. BERR, on behalf of the Government of the United Kingdom of Great Britain and Northern Ireland, intends to make financial contributions (hereinafter "Contributions") to DOE under this Memorandum for use by DOE in support of GTRI and SLD technical assistance cited in paragraph 1 of this Section.
3. The Participants intend to consult periodically to identify the GTRI and/or SLD projects to which BERR may elect to contribute.
4. One or more BERR technical experts may on occasion accompany GTRI and/or SLD representatives on project-related visits to sites where the Contributions are being used: (i) at such times and under other terms and conditions as the Participants mutually determine, and (ii) subject, in each

case of a proposed BERR site visit, to the agreement of appropriate government officials of the country to be visited.

5. Subject to Section III, paragraph 2 of this Memorandum, DOE may accept, retain, and use the Contributions to December 31, 2013.

III FINANCIAL ARRANGEMENTS

1. From time to time as projects are identified by the Participants for BERR funding, BERR intends to pay the Contributions to DOE's account at the Federal Reserve Bank of New York, in accordance with arrangements determined by the Participants.
2. In the event any portion of the Contributions is not used within five (5) years of its receipt by DOE, DOE intends to return to BERR the unused portion of said Contributions and, to the extent permitted by U.S. law, any interest accrued thereon.
3. DOE intends to keep accounts and records of BERR Contributions to GTRI projects, including all expenditures or commitments; and intends to comply with its relevant regulations and with generally accepted accounting principles, including those related to audits.
4. DOE intends to provide to BERR monthly written updates on the BERR-funded projects, until the Contributions have been fully disbursed. In addition, DOE intends to provide to BERR an annual summary progress report of the BERR-funded projects until the Contributions have been fully disbursed.
5. DOE intends to allow, with reasonable notice, BERR or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contributions, for a period of three years after disbursement of the Contributions are completed. BERR understands that DOE may remove from its audits any information that DOE may be required to protect under U.S. law.

IV ANNUAL REPORT

For the duration of the BERR-funded projects, DOE intends to provide to BERR a copy of the United States Secretary of Energy's annual report to the United States Congress's defense committees regarding international contributions to the Global Threat Reduction Initiative.

V POINTS OF CONTACT

For purposes of facilitating communication under this Memorandum, BERR hereby designates:

Deputy Director
UK Global Threat Reduction Programme,
BERR,
1 Victoria Street,
London
SW1H 0ET

as its point of contact.

For the same purposes DOE designates:

Executive Officer
Office of Global Threat Reduction (NA-21)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

and

Director
Office of the Second Line of Defense (NA-25)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

as its points of contact.

VI ENTRY INTO EFFECT, MODIFICATION AND TERMINATION

1. This Memorandum is not intended to create any legally binding rights or obligations.
2. Cooperation under this Memorandum is expected to commence upon signature by both Participants.
3. This Memorandum may be modified by mutual consent of the Participants in writing. Any such modification is expected to come into effect upon signature by the Participants.

4. A Participant may discontinue its participation in this Memorandum by giving the other Participant 3 months advance written notice.

Signed at this day of , 2008, in duplicate.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA

FOR THE DEPARTMENT OF
BUSINESS ENTERPRISE AND
REGULATORY REFORM OF
THE UNITED KINGDOM OF GREAT
BRITAIN AND NORTHERN IRELAND:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

EXEC-2008-002378

February 25, 2008

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT:

ACTION: Signature of Memorandum of Understanding
between DOE and the United Kingdom's Department of
Business Enterprise and Regulatory Reform for
Cooperation on Nonproliferation Assistance

ISSUE: To request your approval of a proposed MOU between DOE and the United Kingdom's (UK) Department of Business Enterprise and Regulatory Reform (BERR). The MOU is a framework for BERR to make one or more financial contributions to DOE in support of two NNSA nonproliferation activities: the Global Threat Reduction Initiative and the Second Line of Defense (SLD) Program.

BACKGROUND: The UK Government, seeking to promote nuclear nonproliferation and guided by the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction initiated by the G8 in June 2002, desires to make financial contributions to support the work of DOE's Global Threat Reduction Initiative (GTRI) and SLD Program. All BERR contributions will be used to identify, secure, remove and/or facilitate the disposition of vulnerable nuclear and radioactive material in foreign countries under GTRI and/or to detect and deter illicit trafficking of nuclear and other radioactive material at host countries' airports, seaports, and other border crossing facilities under the SLD program. The United Kingdom plans to make an initial contribution of approximately £2 million (approximately \$4 million) in March 2008 and contemplates making additional contributions from time to time in the future.

The John Warner National Defense Authorization Act for Fiscal Year 2007 authorizes DOE to accept contributions from foreign governments for GTRI and SLD threat reduction efforts through December 31, 2013.

SENSITIVITIES: None.

POLICY IMPACT: None.



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URGENCY: BERR would like to announce its initial contribution before the end of February to coincide with the issuance of its annual report and to issue a press release noting the contribution and conclusion of the MOU. To accommodate this timeframe, prompt approval of the MOU is requested.

RECOMMENDATION: That you approve signature of the MOU. It is contemplated that the U.S. Ambassador to the Court of James will sign the MOU in London on DOE's behalf.

CONCURRENCE: General Counsel – Fygi f/Hill – 2/12/08

APPROVE:



DISAPPROVE: _____

DATE:

February 26, 2008

Attachment

MEMORANDUM OF UNDERSTANDING NO. 2

BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

**THE DEPARTMENT OF FOREIGN AFFAIRS AND
INTERNATIONAL TRADE CANADA**

ON PARTICIPATION IN THE

GLOBAL THREAT REDUCTION INITIATIVE

The Department of Foreign Affairs and International Trade Canada (DFAIT) and the Department of Energy of the United States of America (DOE), hereinafter referred to as the "Participants";

SEEKING to promote the nonproliferation of nuclear weapons and other nuclear explosive devices in accordance with the Treaty on the Nonproliferation of Nuclear Weapons of July 1, 1968; and

GUIDED by the mutual desire to cooperate with each other to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials, in accordance with the objectives of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, an initiative created by the G8 at the Kananaskis Summit in June 2002 (the "Global Partnership");

ACKNOWLEDGING earlier successful cooperation between DOE and DFAIT under the Global Partnership for the recovery, decommissioning, securing, replacing with alternative power sources, disassembly, safe and secure transportation, and final disposal of radioisotopic thermoelectric generators (RTGs) in the Russian Federation;

CONSIDERING the ongoing urgency of such work to help prevent the theft of and unauthorized access to high-risk radioactive sources such as those contained in RTGs;

HAVE REACHED THE FOLLOWING UNDERSTANDING:

1.0 OBJECTIVE

- 1.1 The objective of this Memorandum of Understanding No. 2 (hereinafter referred to as "MOU") is to facilitate cooperation between the Participants in furtherance of the Global Partnership, which was established to support specific cooperation projects, initially in Russia and then in other countries, including those of the former Soviet Union, to address nonproliferation, disarmament, counter-terrorism and nuclear security issues, including threats posed by vulnerable, high-risk nuclear and other radioactive materials.
- 1.2 The Participants recognize that vulnerable high-risk nuclear and other radioactive materials in countries of the former Soviet Union constitute a proliferation threat, and, in furtherance of their Global Partnership commitments, the Participants intend to cooperate pursuant to this MOU to strengthen the capabilities of those countries to identify, secure, remove and/or facilitate the disposition of those materials.

2.0 SCOPE OF COOPERATION

- 2.1 DOE, on behalf of the Government of the United States of America, is providing technical assistance through the DOE/National Nuclear Security Administration's Global Threat Reduction Initiative to identify, secure, remove and/or facilitate the disposition of vulnerable, high-risk nuclear and other radioactive materials in countries around the world.
- 2.2 DFAIT intends to make a financial contribution (hereinafter referred to as the "Contribution") in the amount of up to \$2 million Canadian dollars for the direct costs of recovery, decommissioning, securing, replacing with alternative power sources, disassembly, safe and secure transportation, and final disposal of up to ten (10) RTGs along the Northern Sea Route in Russia (hereinafter referred to as the "Cooperation Project").
- 2.3 The Participants intend to complete the Cooperation Project within thirty-six (36) months of signature of this MOU.

3.0 FINANCIAL ARRANGEMENTS AND REPORTING

- 3.1 DFAIT intends to pay the Contribution in one lump sum to DOE's account at the Federal Reserve Bank of New York, in accordance with arrangements determined by the Participants. DOE intends to use this Contribution solely for the Cooperation Project.
- 3.2 In the event any portion of the Contribution is not utilized upon the completion of the project, DOE intends to return to DFAIT the unused portion of said Contribution.

- 3.3 The Contribution made hereunder is not for the consideration of a supply or service to DFAIT and as such, the Canadian Goods and Services Tax does not apply to the Contribution made under this MOU.
- 3.4 The Participants understand that the maximum Contribution payable under this MOU is \$2 million Canadian dollars.
- 3.5 DOE intends to keep accounts and records of the costs of the Cooperation Project, including all expenditures or commitments and intends to comply with its relevant regulations and with generally accepted accounting principles, including those related to audits.
- 3.6 By the last day of every month for the duration of the Cooperation Project, DOE intends to provide to DFAIT monthly written updates summarizing the status of the implementation of the Cooperation Project and the activities undertaken during the preceding month.
- 3.7 For the duration of the Cooperation Project, DOE intends to provide to DFAIT a copy of the United States Secretary of Energy's annual report to the United States Congress defense committees regarding international contributions to the Global Threat Reduction Initiative.
- 3.8 Ninety (90) days after the completion, or earlier termination, of the Cooperation Project, DOE intends to submit to DFAIT a final report. It should include, but not be limited to:
- 3.8.1 a description of the activities under the Cooperation Project;
 - 3.8.2 a comparison of planned versus actual activities, including an explanation of variances, successes and failures of the Cooperation Project in terms of meeting its objectives and milestones;
 - 3.8.3 problems encountered, actions taken, results and lessons learned; and
 - 3.8.4 conclusions and recommendations.
- 3.9 DOE intends to allow, with reasonable notice, DFAIT or its representatives, access to audits performed by DOE with regard to DOE's disbursement of the Contribution for the Cooperation Project, during the Cooperation Project and for a period of three (3) years after disbursement is completed as described in Paragraph 9.2 of this MOU. DFAIT understands that DOE may redact from its audits any information that DOE may be required to protect under United States law.
- 3.10 The Participants understand that business-confidential information or documents exchanged between the Participants should be disclosed only upon the written consent of the providing Participant and should be protected by each Participant to the fullest extent allowed by the law of its respective country.

4.0 PUBLIC ANNOUNCEMENTS

4.1 Where appropriate, and upon consultation, the Participants intend to acknowledge the Contribution in publications, speeches, press releases or other similar media.

4.2 The Participants intend, upon consultation and mutual consent, to issue public announcements concerning the Contribution in their respective official languages.

5.0 DIFFERENCES OF INTERPRETATION OR APPLICATION

The Participants intend to resolve any difference arising out of the application or interpretation of this MOU amicably, through consultations.

6.0 CONFLICT OF INTEREST

The Participants intend that no public office holder or member of the House of Commons of Canada, nor any public office holder of the United States, may derive a benefit from this MOU.

7.0 SOURCE OF FUNDS

For the duration of the Cooperation Project, DOE intends to inform DFAIT of all amounts of funds received from other international donors to the Cooperation Project. Should the amounts of these funds change, DOE intends to promptly advise DFAIT.

8.0 POINTS OF CONTACT

For purposes of facilitating communication under this MOU, DFAIT hereby designates:

Senior Program Manager
Nuclear and Radiological Security
Global Partnership Program (IGX)
Department of Foreign Affairs and International Trade Canada (DFAIT)
125 Sussex Drive
Ottawa, Ontario K1A 0G2

as its point of contact.

For the same purposes DOE designates:

Executive Officer
Office of Global Threat Reduction (NA-21)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

as its point of contact.

- 9.0 ENTRY INTO OPERATION, DURATION, MODIFICATION, INTERPRETATION, AND TERMINATION
- 9.1 Cooperation under this MOU is expected to commence upon the date of the last signature.
- 9.2 DOE intends to inform DFAIT in writing of the date on which final disbursement of the Contribution is completed.
- 9.3 This MOU may be modified by the Participants jointly in writing.
- 9.4 The Participants do not intend this MOU, or any provision thereof, to create any legally binding obligations upon the Participants.
- 9.5 A Participant may terminate this MOU upon giving this other Participant three (3) months written notice. Notwithstanding termination of this MOU, Paragraphs 3.8 and 3.9 continue in effect according to their respective terms.

Signed in duplicate in the English and French languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

Signed at:

On:

Signature:

Name:

Title:

FOR THE DEPARTMENT OF FOREIGN
AFFAIRS AND INTERNATIONAL TRADE
CANADA:

Signed at:

On:

Signature:

Name: Troy Lulashnyk

**Title: Director General
Global Partnership Program**



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

EXEC-2008-003494

March 19, 2008

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM: THOMAS P. D'AGOSTINO
ADMINISTRATOR

A handwritten signature in black ink, appearing to read "Tom D'Agostino for", is written over the printed name of the Administrator.

SUBJECT: ACTION: Signature of Memorandum of Understanding No. 2 between DOE and Canada's Department of Foreign Affairs and International Trade on Participation in the Global Threat Reduction Initiative

ISSUE: To request delegation of authority for NNSA Administrator Tom D'Agostino or his delegate to sign the proposed MOU between DOE and Canada's Department of Foreign Affairs and International Trade (DFAIT).

BACKGROUND: Under memoranda of understanding signed in March 2007, the Government of Canada made contributions to support the nonproliferation assistance work of NNSA's Global Threat Reduction Initiative (GTRI) (\$CAN 2 million) and the Second Line of Defense Program (\$CAN 4.9 million). Under the new MOU, Canada's Ministry of Foreign Affairs desires to make an additional financial contribution of up to \$CAN 2 million to support GTRI work. All of DFAIT's contributions will be used for the recovery, decommissioning, securing, dispositioning and replacing with alternative energy sources of radioisotopic thermoelectric generators in Russia.

The John Warner National Defense Authorization Act for Fiscal Year 2007 authorizes DOE to accept international contributions from foreign governments for GTRI threat reduction efforts through December 31, 2013.

SENSITIVITIES: None.

POLICY IMPACT: None.

URGENCY: DFAIT would like to make its contribution to GTRI before the end of the Canadian fiscal year, which is March 31, 2008. To accommodate this timeframe, signature of the MOU is needed by March 28, 2008.



RECOMMENDATION: That you authorize the NNSA Administrator or his delegate to sign the proposed MOU.

CONCURRENCE: GC D.Hill 3/13/08

APPROVE:



DISAPPROVE:

DATE:

3/20/08

Attachment
Proposed MOU

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA,
AND
THE MINISTRY OF FINANCE AND PUBLIC ADMINISTRATION
AND THE MINISTRY OF PUBLIC WORKS, TRANSPORT AND
COMMUNICATIONS
OF THE PORTUGUESE REPUBLIC
CONCERNING
COOPERATION TO PREVENT
ILLICIT TRAFFICKING IN NUCLEAR AND OTHER RADIOACTIVE MATERIAL

The Department of Energy of the United States of America (DOE), and the Ministry of Finance and Public Administration and the Ministry of Public Works, Transport and Communications of the Portuguese Republic (constituting a single Participant, hereinafter the "Portuguese Participants"), all collectively referred to as the "Participants":

Recognizing the volume of trade between the Port of Lisbon and seaports in the United States of America, and Portugal's role as a transport hub for cargo originating in many countries;

Being convinced of the need to detect, deter, and where necessary, to interdict illicit trafficking in nuclear and other radioactive material, including terrorist attempts to disrupt global trade through or from ports in Portugal or to attempt to make use of commercial shipping to further terrorist schemes;

Noting the U.S. Container Security Initiative, which is designed to safeguard global maritime trade by enhancing cooperation at seaports worldwide to identify and examine high-risk containers and ensure their in-transit security; and

Noting further the Agreement between the United States of America and the European Community on Customs Cooperation and Mutual Assistance in Customs Matters of 28 May, 1997, as amended,

Have reached the following understanding:

I. SCOPE OF COOPERATION

1. The DOE, through its National Nuclear Security Administration, may provide technical assistance, at no cost to the Government of the Portuguese Republic (hereinafter Portugal), in the form of equipment and materials, as well as training and services, for use at the Port of Lisbon and other locations in Portugal as jointly determined by the Participants, to detect and interdict illicit trafficking in special nuclear material and other radioactive material. As used herein, "special nuclear material" means plutonium, and uranium enriched to 20 percent or more in the isotope U-235. "Other radioactive material" includes, but is not limited to, radioactive sources suitable for use in radiological dispersal devices.
2. Each Participant may, following written notification to the other Participant, delegate responsibilities for the implementation of this Memorandum of Understanding ("MOU") to other ministries or agencies of its respective government.
3. DOE's technical assistance may include:
 - a. delivery and installation at the Port of Lisbon and at other seaports in Portugal as the Participants mutually determine of equipment adapted as appropriate for customs control conditions (including testing, setup, and demonstration of the equipment);
 - b. delivery of spare parts kits, test equipment and other maintenance equipment to maintain the DOE-supplied equipment;
 - c. support for maintenance of the equipment provided by DOE, as set forth in a maintenance and sustainability plan jointly determined by the Participants;
 - d. training of the Portuguese Participants' personnel and other appropriate personnel in detection of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by DOE;
 - e. training and technical consultations concerning trends in nuclear smuggling and other matters related to detections of nuclear and other radioactive materials; and
 - f. additional areas of cooperation of mutual interest to the Participants.
4. Upon request by DOE, representatives of the DOE may make technical evaluations of the equipment supplied under this MOU.

5. The Participants may conduct technical workshops, consultations, site surveys, verification inspections and acceptance testing of materials and installed equipment. Joint working groups of technical experts may be formed to exchange technical information and to make proposals on technical and training matters to ensure the effective implementation of this MOU.
6. The terms of any technical assistance provided under this MOU are expected to be set forth in contracts or other written arrangements between DOE and one or both Portuguese Participants or their designated implementing agents.
7. The Portuguese Participants should endeavor to ensure that equipment and materials provided under this MOU are afforded priority processing to allow prompt engineering approvals, and equipment and materials deliveries to their ultimate destination in Portugal.

II. PROVISION OF INFORMATION

The Portuguese Participants are to furnish the Government of the United States of America, through its representatives (to be designated by DOE) present in Portugal and in a format and according to a schedule to be determined by the Participants, with data on detections or seizures of special nuclear material and of other radioactive material made as a result of the use of the equipment and materials supplied under the MOU.

III. NON-TRANSFER OF EQUIPMENT

Unless the written consent of the DOE has first been obtained, the Portuguese Participants should not transfer title to, or possession of, any equipment provided by the DOE pursuant to this MOU, other than within the Government of Portugal.

IV. TAX AND CUSTOMS TREATMENT OF EQUIPMENT

The Participants understand that the DOE and its implementing agents are not to pay any taxes, duties or other charges on equipment, materials, training or services provided under this MOU.

V. GENERAL PROVISION

This MOU represents a political commitment by both sides and does not constitute a legally binding agreement. All activities of each Participant and its implementing agents under this MOU should be carried out in accordance with the laws and regulations of that Participant's Government and with applicable international agreements to which that Participant's Government is party.

VI. EFFECTIVE DATE AND DURATION

Implementation of this MOU may begin upon signature by both Participants. This MOU may be modified in writing by the Participants' mutual consent. Any such modifications may take effect upon signature by both Participants. If either Participant wishes to end its cooperation under the MOU, it should endeavor to provide at least 90 days' advance written notice to the other Participant.

Signed at Lisbon, in duplicate, the twenty-sixth day of May 2008, in the English and Portuguese languages.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:



FOR THE MINISTRY OF FINANCE
AND PUBLIC ADMINISTRATION

and
THE MINISTRY OF PUBLIC WORKS,
TRANSPORT AND COMMUNICATIONS

OF THE PORTUGUESE REPUBLIC

12. MANAGEMENT:

The coordinators for the activities under this Memorandum are:

DOE Exploration Program Manager Office of Natural Gas & Petroleum Technology U.S. Department of Energy FE-32, Room 3E-028 1000 Independent Ave., SW Washington, DC 20585, USA Ph :001.202.586.1023 Fax : 001.202.586.6221	DGH Director General Directorate General of Hydrocarbons C-139, Sector 63 Noida - 201 301 Uttar Pradesh India Phone - 0091 120 4029 400 Fax - 0091 120 4029 410
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Each coordinator may appoint technical coordinators to manage specific cooperative activities under this Memorandum. The coordinators may meet at such times and places as they may determine.

13. GENERAL PROVISIONS:

This Memorandum does not create any legally binding obligations.

Each Participant should conduct the activities provided for under this Memorandum in accordance with the applicable laws and regulations to which it is subject, and subject to the availability of personnel and appropriated funds.

Signed at New Delhi on 4th April 2008 in duplicate.

 (C. H. "Bud" Albright) Under Secretary, U.S. Department of Energy For the Department of Energy of the United States of America:	 (M. S. Srinivasan) Secretary, Petroleum & Natural Gas Republic of India For the Directorate General of Hydrocarbons, Ministry of Petroleum and Natural Gas of the Republic of India:
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technology available, knowledge sharing, seismic data, well logs, core analysis, and other related laboratory analysis

DOE scientists in cooperation with their Indian counterparts intend to try to identify all of the publications and products at the start of their cooperation under this Memorandum, but additional publications may be subsequently identified by mutual consent. All publications and announcements under this Memorandum should be made in a spirit of collaboration among the DGH and DOE project participants. All publications and data releases should be identified and coordinated through the DGH-DOE project managers. Proprietary data such as seismic profiles or derived maps may be published, subject to prior approval of DGH or DOE as the case may be.

7. DISCLAIMER:

Neither Participant makes any representation or warranty respecting the results arising from the projects under this LOA, either expressly or implied by law or otherwise, including but not limited to, implied warranties or conditions of merchantability or fitness for a particular purpose. Neither Participant shall be liable in any way to the other Participant for loss of revenue or contracts, or any other consequential loss of any kind relating to the project or this agreement.

8. MODIFICATIONS:

This Memorandum may be modified in writing by DOE and DGH.

9. COMMENCEMENT AND DURATION:

Implementation of this Memorandum may commence upon signature by both Participants and (subject to Paragraph 10) continue for five years. This Memorandum may be extended for additional periods as determined in writing by both Participants.

10. TERMINATION:

If either Participant wishes to end its cooperation under this Memorandum, it should endeavor to provide ninety (90) days written notice to the other Participant. Each Participant should, immediately upon termination, return to the other Participant papers, materials, or other property held by the receiving Participant for use in cooperative activities under this Memorandum.

11. FINANCIAL ARRANGEMENTS:

Each Participant is responsible for its costs of participating in the cooperative activities under this Memorandum.

industry and academia to develop methane production from hydrates while seeking to protect the environment and understand the role of hydrates in safety of conventional petroleum operations and global climate change.

The DOE and DGH have reached the following understanding:

3. AIMS AND OBJECTIVES:

This proposed cooperation between the DGH and the DOE aims to enhance and accelerate the understanding of the geologic occurrence, distribution and production of natural gas hydrates along the continental margin of India and in the United States of America.

4. AREAS OF COOPERATION:

The Participants intend to exchange scientific and technical information and scientific personnel; conduct workshops, seminars and other meetings; and plan cooperative research with respect to the following broad areas of cooperation:

- I. Exploration of natural gas hydrates
- II. Quantification of natural gas hydrates in marine sediments
- III. Laboratory analysis and characterization of natural gas hydrates
- IV. Resource assessment
- V. Modeling for producibility of natural gas from hydrated reservoirs
- VI. Development of pilot production test plan for marine hydrates
- VII. Field testing of producibility from hydrate reservoirs involving various agencies where the expertise is available in the US.
- VIII. Data access and archiving
- IX. Facilitation of establishment of a Gas Hydrate Technology Center in India
- X. Facilitation of the transfer of technology for hydrate exploration and development.

5. PARTICIPATING ORGANIZATIONS:

DGH may nominate the NGHP organizations for participation in cooperative research and work association with DOE on gas hydrates. The DOE may propose or invite organizations in the United States to participate in cooperative research with DGH on gas hydrates.

6. EXCHANGE OF INFORMATION

The Participants may exchange scientific and technical information, documents and results of research and development. Such information should be limited to that which the Participants have the right to disclose, either in their possession or available to them. Information to be exchanged under this Memorandum includes, but is not limited to,

MEMORANDUM OF UNDERSTANDING

Between

**The Ministry of Petroleum and Natural Gas
of the Republic of India**

And

**The Department of Energy
Of the United States of America
for Cooperation in Gas Hydrates**

1. SUBJECT:

The Department of Energy of the United States of America (DOE) and the Ministry of Petroleum and Natural Gas of the Republic of India, through its Directorate General of Hydrocarbons (DGH) (hereinafter referred to as the "Participants") conclude this Memorandum of Understanding (Memorandum) to exchange information and analyses, conduct joint studies and projects, exchange scientific and technical personnel, and facilitate the establishment of a Gas Hydrate Technology Center in India in order to increase understanding of the geologic occurrence and the potential for methane production from natural gas hydrates in both India and the United States.

2. BACKGROUND:

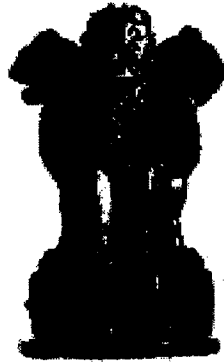
On May 31, 2005, U.S. Secretary for Energy Samuel W. Bodman and Dr. Montek Singh Ahluwalia, Deputy Chairman Planning Commission of India, launched a new Energy Dialogue. Several working groups, including the U.S.-India Energy Dialogue Oil and Gas Working Group, have been formed to support the new Energy Dialogue. This Memorandum supports the Oil and Gas Working Group.

The National Gas Hydrate Program (NGHP) has been launched by the Ministry of Petroleum and Natural Gas (MoP&NG) for exploratory research on the natural gas hydrates in India. NGHP is represented by the DGH under the MoP&NG. The participating organizations in NGHP are Oil and Natural Gas Corporation Ltd (ONGC), GAIL India Ltd (GAIL), Oil India Ltd (OIL) and research institutions such as National Institute of Oceanography (NIO), National Institute of Ocean Technology (NIOT) and National Geophysical Research Institute (NGRI). DGH on behalf of NGHP is interested in the study, drilling and sampling of gas hydrates in order to meet India's long-term goal of developing this natural energy resource in a cost-effective and efficient manner.

The DOE conducts a gas hydrates research and development program in coordination with other United States Government agencies, including the Departments of the Interior, Commerce, Defense and the National Science Foundation. The DOE works with

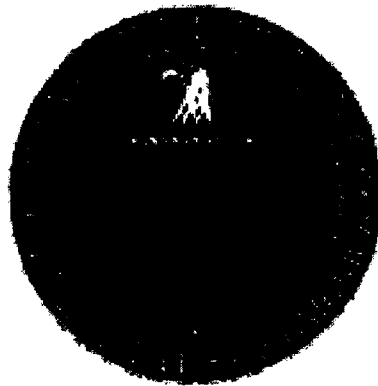
MEMORANDUM OF UNDERSTANDING

Between



**The Ministry of Petroleum and Natural Gas
of the Republic of India**

And



**The Department of Energy
Of the United States of America**

for Cooperation in Gas Hydrates

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE GOVERNMENT OF THE KYRGYZ REPUBLIC
AND
THE GOVERNMENT OF THE UNITED STATES OF AMERICA
CONCERNING
PREVENTION OF ILLICIT TRAFFICKING IN NUCLEAR AND
OTHER RADIOACTIVE MATERIAL

The Government of the Kyrgyz Republic and the Government of the United States of America, hereinafter referred to as the "Parties,"

Desiring to cooperate to detect and interdict illicit trafficking in special nuclear and other radioactive material through technical and methodological cooperation, including the installation and improvement of technical systems for the detection and identification of such material at border crossing control points of the Kyrgyz Republic,

Have agreed as follows:

Article 1

1. The terms of the Agreement between the Government of the Kyrgyz Republic and the Government of the United States of America Regarding Cooperation to Facilitate the Provision of Assistance signed on May 19, 1993 (hereinafter referred to as the “1993 Assistance Agreement”) shall apply to activities under this Memorandum of Understanding (Memorandum).
2. This Memorandum shall be implemented by the following responsible entities of each Party: for the Government of the United States of America —the Department of Energy of the United States of America (DOE); for the Government of the Kyrgyz Republic—the State Customs Committee (SCC) of the Kyrgyz Republic. Either Party may delegate responsibilities for the implementation of this Memorandum to other ministries and agencies of that Party.
3. The DOE, acting through its National Nuclear Security Administration, may provide the SCC technical assistance, at no cost, in the form of equipment and materials, training of specialists, as well as associated services, as jointly identified by the DOE and the SCC. As used herein, the term “special nuclear material” means plutonium, and uranium enriched in the isotope 233 or 235. “Other radioactive material” includes radioactive substances emitting ionizing radiation and suitable for use in radiological dispersal devices.
4. The Government of the Kyrgyz Republic shall be responsible for the use and maintenance of the equipment provided by DOE. The Government of the Kyrgyz Republic must use the equipment and materials it receives, as well as the training and services provided under this Memorandum, solely for the purpose of preventing illicit trafficking in special nuclear and other radioactive material.

Article 2

1. DOE's technical assistance may include:
 - a. delivery and installation, at border crossing control points in the Kyrgyz Republic, of equipment for the purpose of detecting special nuclear and other radioactive material, adapted for customs control conditions (including checking, setup, and demonstration of equipment);
 - b. delivery of spare parts kits, test equipment, technical and user documentation, and other necessary maintenance equipment to repair the DOE-supplied equipment;
 - c. training of appropriate SCC personnel and other personnel in identification of special nuclear material and other radioactive material, and in the proper use and maintenance of equipment provided by the DOE;
 - d. support in maintaining the DOE-provided equipment for a period of three years from installation of the equipment, in accordance with the equipment care and maintenance plan to be determined jointly by the DOE and SCC;
 - e. additional areas of cooperation as agreed upon by the DOE and SCC.
2. The DOE and the SCC may conduct joint technical workshops, consultations, site equipment visits, technical evaluations of the equipment, verification inspections, and acceptance tests of installed equipment and materials. Joint working groups of technical experts may be formed to exchange technical information about the operation of the equipment and develop proposals on technical and training matters relating to effective implementation of this Memorandum.
3. SCC shall coordinate with appropriate ministries, agencies and organizations of the Government of the Kyrgyz Republic to ensure that equipment and materials provided under this Memorandum are afforded priority processing to allow

prompt engineering approvals and deliveries to their ultimate destinations within the Kyrgyz Republic.

4. The terms and conditions under which assistance may be provided under this Memorandum will be set forth in contracts or other written arrangements between DOE and SCC or their designated implementing agents. In case of any inconsistency between these contracts or other written arrangements and this Memorandum, including the terms of the 1993 Assistance Agreement, the provisions of the 1993 Assistance Agreement and this Memorandum shall prevail.

Article 3

The SCC, through the Ministry of Foreign Affairs of the Kyrgyz Republic, shall furnish the Government of the United States of America, through its representatives (to be designated by the DOE) present in the Kyrgyz Republic, and in a format and according to a schedule to be determined by the DOE and the SCC, with information on any detections or seizures of illicitly trafficked special nuclear material and other radioactive material made as a result of use of the equipment and materials supplied under this Memorandum. Lawful shipments of special nuclear material and other radioactive material are not subject to this information reporting requirement.

Article 4

Without the prior written consent of the DOE, the SCC shall not transfer title to, or possession of, the equipment provided by the DOE in furtherance of this Memorandum, other than to other ministries, agencies, departments, or subdivisions of the Government of the Kyrgyz Republic to which the Government of the Kyrgyz Republic has delegated responsibilities for implementation of this Memorandum.

Article 5

Each Party shall implement cooperation under this Memorandum in accordance with its national laws, regulations, and applicable international agreements to which it is a party.

Article 6

Provision of assistance under this Memorandum shall be subject to the availability of funds allocated for this purpose.

Article 7

All questions and/or disputes that arise in regard to the interpretation or application of this Memorandum shall be resolved through consultations between the Parties.

Article 8

1. This Memorandum shall enter into force upon signature.
2. This Memorandum may be amended by mutual agreement of the Parties in writing
3. Subject to paragraph 4 of this Article, this Memorandum shall remain in force so long as the 1993 Assistance Agreement remains in force.
4. A Party may terminate this Memorandum by giving the other Party three months notice in writing of its intention to terminate its activities under this Memorandum.

DONE at Bishkek, in duplicate, the day of 2008, in the
Russian and English languages, both texts being equal authentic.

FOR THE GOVERNMENT OF THE
KYRGYZ REPUBLIC:

FOR THE GOVERNMENT OF
THE UNITED STATES OF AMERICA:



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

EXEC-2008-006297

June 5, 2008

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE SECRETARY

FROM:

THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT:

ACTION: Signature of the Memorandum of Understanding (MOU) between the Government of the United States of America and the Government of the Kyrgyz Republic Concerning the Prevention of Illicit Trafficking in Nuclear and Other Radioactive Material (Tab A)

ISSUE: To request approval for signature of the MOU.

BACKGROUND: The MOU will implement NNSA's Second Line of Defense (SLD) Program, which installs radiation detection portal monitors and associated communications equipment at host governments' border crossings and airports, and provides training of host government customs officers and other personnel in the use and sustainability of the installed equipment. SLD is ready to begin deployment of detection equipment at border crossings in Kyrgyzstan. Kyrgyzstan's geographic position makes it a potential trafficking route for nuclear materials, and is therefore considered a high priority country for the SLD Program.

SENSITIVITIES: None.

POLICY IMPACT: None.

URGENCY: The MOU is scheduled to be signed the week of June 16, 2008.

RECOMMENDATION: That you approve signature of the MOU. It is contemplated that the U.S. Deputy Chief of Mission to Kyrgyzstan will sign the MOU on behalf of the U.S. Government.

CONCURRENCES: DOE/GC

E. Fygi

6/01/2008

APPROVE:

DISAPPROVE:

DATE:

19 June 08

Attachment:

Tab A: Proposed MOU



**Department of Energy**

Washington, DC 20585

April 1, 2003

MEMORANDUM FOR THE EXECUTIVE SECRETARY, DEPARTMENT OF DEFENSE

SUBJECT: Approval to detail Ms. Joanne Dickow, a Department of Energy (DOE) employee, to the Department of Defense (DOD) for six months.

The Department of Defense has requested the services of Ms. Joanne Dickow, an employee of the Office of Policy and International Affairs, a 6-month non-reimbursable detail appointment. The Office of Policy and International Affairs will pay Ms. Dickow's salary, and other benefits costs associated with the detail while she is on assignment.

The purpose of Ms. Dickow's detail assignment will be to support the post-war Iraq civil reconstruction and humanitarian assistance. These activities are consistent with the missions of the DOE and DOD. Additionally, this detail request is consistent with the President's directive contained in the National Security Directive (NSPD) number 24, dated January 20, 2003.

Ms. Dickow's detail will begin effective immediately and end no later than six months from the date of this memorandum.

The point of contact on this issue is Kristen Bressman, Executive Resources Management Division, who can be reached 202-586-8477.

Regards,

A handwritten signature in cursive script, reading "Vicky A. Bailey", is positioned above the typed name.

Vicky A. Bailey
Assistant Secretary
Office of Policy and International Affairs

Other: Memoranda
of Understanding/Agreements



MEMORANDUM OF AGREEMENT
BETWEEN THE DEPARTMENT OF DEFENSE AND
THE DEPARTMENT OF ENERGY REGARDING
DETAILS FOR EMPLOYEES FOR IRAQ POST-WAR
RECONSTRUCTION AND HUMANITARIAN ASSISTANCE

I. Purpose and Authorities

A. This Memorandum of Agreement (MOA) between the Department of Defense (DOD) and the Department of Energy (DOE) sets forth the terms and conditions under which DOE employees will be detailed to DOD in connection with Iraq post-war reconstruction and humanitarian assistance.

B. Authorities for this MOU include National Security Presidential Directive (NSPD) No. 24 (January 20, 2003), 22 U.S.C. 2685, and 22 U.S.C. 3983.

II. Background

A. The DOD has requested the non-reimbursable detail of DOE employees with substantive expertise in certain areas to its Office of Reconstruction and Humanitarian Assistance. The DOE employees will assist in planning and implementation on a wide spectrum of issues regarding post-war Iraq civil reconstruction and humanitarian assistance. These are activities in support of the missions of both parties to this MOA.

B. These employees will be located in the United States, Qatar, Kuwait, and Iraq. Details of an employee generally would be for a period of no greater than one year. With the duration of a detail for a specific employee determined by the parties on a case-by-case basis and in accordance with applicable statutes and regulations.

C. The DOE employee detailed to DOD pursuant to this MOA are in addition to those detailed pursuant to the Memorandum of Understanding Between DOD and Energy Regarding Nonreimbursable Details of Personnel (effective October 16, 2002).

III. Allocation of Responsibilities

A. Safety and Security. The DOD shall have full responsibility for the safety and security of the employees detailed to the DOD pursuant to this MOA. In particular, the Commander, U.S. Central Command (USCENTCOM) shall be responsible for the safety and security of the DOE detailees on duty at locations in USCENTCOM's area of responsibility.

The DOE employees detailed pursuant to this MOA shall become familiar with and comply with U.S. military safety and force protection guidelines and will comply with all guidance and direction regarding safety and security provided them by

USCENTCOM, and will comply with all requirements applicable to DOD emergency employees (10USC 1580 and DOD Directive 1404.10).

B. Supervision. The DOE employees shall report to and be supervised by the appropriate official at the DOD.

C. Salary and Benefits. The DOE will be responsible for the employee's salary, including danger pay, and employer portion of benefits for the duration of the detail.

D. Allowances and Differentials. The DOE will be responsible for paying any allowances and differentials to which the employee may be entitled during he detail.

E. Recruitment and Selection. The Department of Energy will be responsible for the recruitment and selection of specific DOE employees for detail to the DOD, subject to consultation and concurrence of DOD. The DOE will ensure that all DOE employees selected for detail have at least a SECRET clearance.

F. Work Responsibilities and Performance Evaluation. The DOD, in consultation with the Department of Energy, shall be responsible for developing the DOE employee's work requirements and for rating the employee's performance in accordance with applicable regulations and in a timely manner. The official evaluation will be sent to the DOE for inclusion in the employee's official personnel folder.

G. Office Space and Equipment, Lodging, Transportation, Meals, Official Travel, Medical Services, Training and Other Costs Associated with Official Duty. The DOD shall provide office space, office supplies and equipment, transportation, lodging, meals, all official travel expenses, medical services (including applicable vaccinations), training, and all other costs associated with official duty, at the same level as that afforded to employees of equivalent grade at DOD.

IV. Duration of Details

A. In general, details of DOE employees pursuant to this MOA shall be for a period no greater than one year, with the duration of a detail for a specific employee determined by the parties on a case-by-case basis.

B. Details of DOE employees may be extended beyond one year on a case-by-case basis, subject to consultation and concurrence of both parties to this MOA. The parties shall review any proposed extension for operational need and legal authority.

V. Points of Contact

A. Unless otherwise specified by the parties, the point of contact for the implementation of this MOA within the DOE shall be the Director of the Resource Management, Office of Policy and International Affairs, who currently is Jonathan Mathis.

B. Unless otherwise specified by the parties, the point of contact for the implementation of this MOA within DOD shall be Larry Hanauer, Special Assistant to the Director, Office of Reconstruction and Humanitarian Assistance.

VI. Implementation, Amendment and Termination

A. This MOA shall become effective immediately upon signature of the representatives of the DOE and DOD designated below. It shall remain in effect until terminated.

B. This MOA may be amended at any time by the mutual agreement of both parties in writing.

C. This MOA may be terminated by either party. Termination shall occur thirty days after a party gives written notice of its intention to terminate, unless the parties agree in writing to a different period.

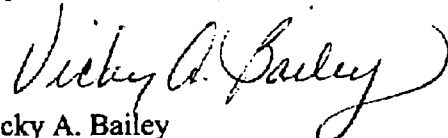
D. Performance under this MOA by both parties is subject to the availability of appropriations.

Department of Defense

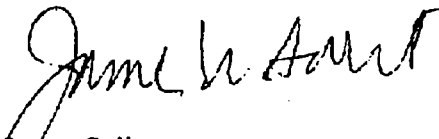
James A. Whitmore
Colonel, USAF
Executive Secretary

Date:

Department of Energy


Vicky A. Bailey
Assistant Secretary
Office of Policy and International Affairs

Date: 4/11/03


James Solit
Executive Secretary

Date: 4/11/03

Matthews, Carol

From: Bressman, Kristen
Sent: Tuesday, April 01, 2003 11:25 AM
To: Matthews, Carol
Cc: McCannell, Susan; Bell, Anna
Subject: Concurrence on Dickow detail

Carol:

Per your request, Susan Beard in GC concurred. Joanne Luczak in ME could not concur without additional budgetary information which is not available to us in either the letter or MOA provided by DoD - Susan McCannell asked me to move ahead since this detail was approved/coordinated by the WH and our WH liaison.

Kristen Bressman
Executive Resources Div/ME-531
(202) 586-8477; fax 6-0077

Qm Salit discussed with
John Shaw, ^{Shaw} who was
okay with this action
4/1/03



The Deputy Secretary of Energy
Washington, DC 20585

July 29, 2003

Major General H. Mashburn, Jr., USMC
Commandant
National Defense University
Industrial College of the Armed Forces
Washington, DC 20319-5066

Dear Major General Mashburn:

Thank you for considering re-activating the Department of Energy's (DOE) Industrial College of the Armed Forces (ICAF) Faculty Chair. It is important to provide civilian and military personnel the broadest education possible concerning the Federal Government's abilities to assure national security. DOE has an important and cross-cutting role.

I am pleased that we have a DOE employee available that meets your personnel qualifications. I have asked Ms. Beverly A. Cook, Assistant Secretary for Environment, Safety and Health, to assign Ms. Mari-Josette Campagnone to this position. DOE's relationship with the ICAF will be strengthened through Ms. Campagnone serving in this position. Ms. Campagnone will be providing Ms. Cook with monthly updates on her activities with the ICAF. If there are other matters of which I can provide assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Kyle E. McSlarrow", is positioned above the printed name.

Kyle E. McSlarrow

Enclosure



**NON-REIMBURSABLE INTERAGENCY AGREEMENT BETWEEN
THE U.S. DEPARTMENT OF ENERGY AND THE NATIONAL DEFENSE
UNIVERSITY**

1. **General Terms-**The U.S. Department of Energy hereby enters into an Agreement for the temporary detail of Ms. Mari-Josette Campagnone from the U.S. Department of Energy (DOE), to the National Defense University (NDU), Industrial College of the Armed Forces (ICAF). This agreement shall be made on a non-reimbursable basis in accordance with the provisions set forth herein.
2. **Purpose and Scope-**DOE in its capacity to support the interest of national defense, its longstanding relationships with the DOD on scientific and nuclear endeavors, its efforts in the area of nonproliferation and its roles in the support of homeland defense provide many areas of common interest and benefit with NDU. It is the intent of DOE to provide Ms. Campagnone as a resource to assist NDU and in particular ICAF. In this capacity, Ms. Campagnone will work for the ICAF Dean of Faculty.
3. **Duration, Implementation and Termination of Agreement-**This assignment is for a 2-year period with the option to extend the agreement for an additional (third) year. The agreement will remain in effect until modified in writing or rescinded in writing by the mutual consent of all parties involved (ICAF, DOE, Ms. Campagnone). This agreement will begin with the initiation of classes for the ICAF 2004 school year.
4. **Personnel Management-***Duty hours* will be established by the schedule of ICAF and the needs of the National Defense University. *Time and attendance* records will be maintained through DOE. *All pay and associated benefits* will continue through DOE for the duration of this detail. *Performance reviews* will continue through DOE and will be based on the advisory appraisals provided by the ICAF Dean of Faculty. *Office space and equipment* will be provided on-site at Fort McNair by ICAF. *Travel* required by DOE will be funded by DOE. Travel required by NDU will be reimbursed by NDU. *Training* required by DOE will be funded by DOE. Training required by NDU will be funded by NDU. *Security Clearances* will be maintained, updated or upgraded by DOE and the provisions of DOE will take precedence. *Career development* responsibilities will continue to reside with DOE and any related funding required for training etc. will be the responsibility of DOE.
5. **Rules, Regulations, Policies and Procedures-** Ms. Campagnone remains under the rules, regulations, policies and procedures that govern employment with DOE. While discharging duties for NDU, Ms. Campagnone will follow the provisions of NDU. In instances where DOE rules, regulations, policies or procedures conflict with those of DOD or NDU final decision authority will default to the parent agency (DOE). Exception sought by NDU will need to be made in writing for decision by DOE.

Appendix A

Department of Energy Mission Interfaces

The Department of Energy has a broad mission supporting the defense of the nation through nuclear arms and arms control, material production and control, non-proliferation, nuclear emergency response, and the development of science and technology for the Department of Defense and homeland security. Moreover, DOE supports energy and environmental technologies ranging from nuclear material clean up and stabilization, to research for advanced reactor design in support of the President's energy initiatives. Within this vast mission, DOE has many important interagency relationships that can be employed to shed light on the many difficult security issues our nation faces today. *One of the purposes of the Industrial College of the Armed Forces is to equip Military and Civilian personnel with a broad understanding of the many facets of national security and with an integrated strategic view of the elements necessary to comprise successful national security strategy. The mission of DOE and its interagency roles can help support such an understanding. Moreover, the mission of NDU in supporting national defense provides to those participating Departments/Agencies an opportunity to broaden their knowledge, access, and perspective regarding the landscape of national interests and issues important to their mission.* Discussed below are the highlights of DOE's missions/roles, the important interagency interfaces related to each, and the ways in which the DOE Chair position can be mutually supportive.

1. **National Defense.** From the advent of the atomic age, DOE and its predecessor organizations played a pivotal role in national defense and deterrence. Today, DOE continues to play a pivotal role in defense, but within a changing landscape. Recently the Congress, through a reorganization of DOE, has focused many of its defense responsibilities and placed them under the National Nuclear Security Administration (NNSA). Today, NNSA leads initiatives relative to stewardship of the nuclear stockpile, non-proliferation, aspects of material control and accountability, and defense waste processing, to name a few. Through these responsibilities, NNSA has a direct relationship with DOD and currently has work being performed by NDU. The War Gaming Center is currently supporting the DOE in building scenarios and analyses to evaluate consequence management issues for homeland security of the DOE sites. The DOE Chair will participate in these efforts. The Defense Nuclear Facilities Safety Board (DNFSB), established in the late 1980's, plays a key advisory role to DOE regarding the safety of its nuclear facilities/activities that fall principally under NNSA management.

response. The DOE Chair is expected to provide an integrating function, as necessary, for these aspects and will apprise all parties involved of issues of interests at NDU.

2. **Science and Technology.** Pioneering and supporting the growth of science and technology to advance the interests of the nation have always been a part of the DOE mission. Through the Office of Science, that acts as a primary steward for such endeavors, many DOE research facilities and national laboratories perform work in areas such as medical research; environmental management; biological, chemical and nuclear detection; and Weapons of Mass Destruction (WMD) deterrence. In addition, DOE under its "Work for Others Program" provides direct support to other agencies such as DOD, Health and Human Services, Homeland Security, and Nuclear Regulatory Commission (NRC). Moreover, within the DOE scientific community, reside key nuclear weapons designers and experts that today play an expanded role in the defense of the nation. These experts are sought to support Homeland Security and DOD as necessitated by world events. There are several critical defense exercises performed by ICAF students throughout the school year, the DOE Chair will be expected to provide insights and support for these activities, as appropriate. Specifically the Chair will provide pertinent knowledge of DOE operations and resources, so that the exercises are meaningful and realistic.
3. **Nuclear Material and Waste Management.** Since September 11, 2001, nuclear material storage, stabilization and clean up has a broader scope and more urgent priority. Environmental clean up is now more than the preservation of the environment, but includes the removal/mitigation of potential enemy targets. The access, targeting, and dispersion of the materials contained on DOE sites, previously classified as a very low probability event, are viewed today with more caution. These vulnerabilities are part of the review of consequence management for CONUS, an activity that involves both Homeland Security and NDU. DOE also has a relationship with the Corps of Engineers, which has helped devise clean up plans and has performed actual clean up, for some DOE facilities. The DOE Chair will remain cognizant of such issues, and will support efforts as necessitated by ICAF and the War Gaming Center. Current events are also calling for a "reassessment of need" for some DOE facilities previously regarded as obsolete. While DOE's nuclear sites are under review for material dispersion consequences, nuclear power reactor sites are undergoing similar review by the NRC. This includes the active reactor core as well as spent fuel materials on power reactor sites. The NRC has now formed a new organization to review the security issues relative to Homeland Security. However, DOE holds responsibility for the long-term storage of civilian reactor spent fuel. This responsibility has lead to DOE's longstanding relationship with the NRC's Advisory Committee on Nuclear Waste (ACNW). The ACNW is charged with the review of DOE's YUCCA

DOE Chair will provide input into the ICAF curricula regarding the impact of safety needs on high-risk operations and in particular will provide insights into DOE safety operations and "regulation".

Appendix B

Personnel Qualifications

The National Defense University through the Industrial College of the Armed Forces (ICAF) educates civilian and military personnel on the needs of the nation to support national security. The focus of the ICAF curriculum is the mobilization of the industrial, economic, information and military base to achieve and maintain national interests. As a result, ICAF seeks to establish and maintain working relationships with civilian government and private industry organizations to support its educational functions. ICAF now seeks to re-establish the Department of Energy (DOE) Chair. The DOE Chair should possess the following qualifications:

1. A broad understanding of the DOE operations, including experience relevant to national defense, science and technology development, nuclear/hazardous materials management, energy, security, and safety; as well as the interagency interfaces necessary for each.
2. The incumbent should have extensive experience working with senior executive personnel, prior experience representing DOE before external stakeholders and in dealing with members of the public including public hearings and litigation.
3. The incumbent should hold a BS and MS degree, preferably in areas of science related to the DOE mission.
4. A strong analytic background is preferred with experience in evaluating accidents/incidents scenarios, supporting consequence management, and knowledge of emergency preparedness/response.
5. Good oral and written communication skills, and appropriate presentation skills for teaching are required.
6. The incumbent should have an understanding of basic military organizations and operations, and a clear knowledge of the ICAF educational principles and practices.
7. The incumbent should be at the senior grade level (GS-15 or above), highly motivated and capable of working with minimal supervision.

Memorandum of Understanding

Between the Department of Energy and the Industrial College of the Armed Forces

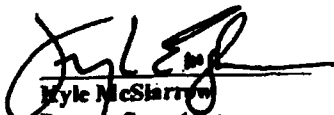
The Department of Energy (DOE) and the Industrial College of the Armed Forces (ICAF) recognize that ties between the two organizations are mutually beneficial and can aid in the effectiveness of each in accomplishing their respective missions. As part of this recognition of mutual benefit, ICAF and DOE continue to support the National Security Studies Program and each year a member of DOE is selected as an ICAF student. We now agree to re-activate the DOE Faculty Chair at ICAF.

Consistent with the original Memorandum of Understanding signed by then Secretary James D. Watkins (Admiral USN Retired) on July 18, 1989, ICAF requests the assignment of a Senior DOE Official (GS-15) to support the ICAF curriculum. It is requested that Ms. Campagnone, ICAF Class of 2003 fulfill this role.

The detailed provisions of this assignment are contained in the attached Non-Reimbursable Interagency Agreement between the Department of Energy and the National Defense University.

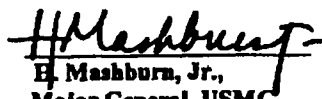
In addition, specific relationships/tasks of interest/benefit and general personnel qualifications are set forth in Appendix A and B respectively.

This agreement is valid through the acceptance of the undersigned and will remain in effect until modified in writing or rescinded in writing.


Kyle McSharrow
Deputy Secretary
Department of Energy

7/29/03

Date


H. Mashburn, Jr.,
Major General, USMC
Commandant
Industrial College of the Armed Forces

9 June 2003

Date

MEMORANDUM OF UNDERSTANDING
between the
National Association of Manufacturers
and the
U.S. Department of Energy

I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to establish a working arrangement between the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy's Industrial Technologies Program (ITP) and the National Association of Manufacturers (NAM and together, the Parties) to promote increased industrial energy efficiency among NAM member companies.

This MOU supports a variety of activities, which aim to assist manufacturing facilities to initiate and implement energy management programs, adopt clean energy efficient technologies and to achieve continual energy efficiency and intensity reduction improvements. NAM and DOE will also coordinate in measuring and documenting the energy savings achieved in NAM member company manufacturing facilities as impacted by the energy efficiency campaign supported by the Parties and other partners to the extent the information is available.

This MOU represents a non-binding expression of intent between the Parties to work together to promote energy efficiency in manufacturing.

II. Background

The manufacturing sector of American society has much to gain from efficiency and waste reduction measures. Manufacturers are directly affected by the cost of energy in making products as well as by the cost of maintaining office operations. It is widely acknowledged that energy efficiency offers immediate and cost-effective opportunities to cut energy costs.

NAM

For more than a century, NAM has played a unique role in promoting a strong manufacturing economy and economic growth, resulting in higher living standards for Americans.

Part of the NAM agenda is to establish a national commitment to reduce energy intensity of the U.S. economy through strategic goal-setting, public-private partnerships and consumer education. Because increasing energy efficiency offers an immediate and cost-effective mean of cutting energy costs, NAM chartered the Energy Efficiency and Conservation Workgroup to partner with governmental entities and other energy efficiency organizations to make use of readily available tools, which will help NAM members identify and address cost-effective energy efficiency opportunities.

DOE

DOE's ITP program mission is to enhance the nation's energy security, competitiveness, and environment by transforming the way industry uses energy. DOE's vision is for American industries to lead the world in the adoption and application of high-impact, clean, efficient, and flexible energy technologies and best practices.

The ITP portfolio provides details on over 1,000 technology development projects in which ITP has been involved, including more than 170 technologies that have reached the commercial market.

III. Collaborative Objectives and Acknowledgments

DOE and NAM recognize that there is a wealth of existing information and tools relating to best energy management practices. Likewise, DOE-sponsored research and development (R&D) has yielded many energy efficient technologies that are ready for market entry. These tools and technologies may not be fully utilized by the manufacturing sector for several reasons, including the limited awareness of service availability, difficulties locating the appropriate service, and a lack of energy efficiency technical proficiency requirements for proper application of the service.

DOE and NAM agree that streamlined access to energy efficient resources through established technical assistance channels, a consolidated user-friendly library of tools, and a roadmap to implement an effective energy management program will significantly increase commercial deployment of energy efficiency technologies. Through outreach efforts, DOE and NAM will reach a greater number of manufacturers, help them achieve greater energy efficiency, and establish systems and technology improvements capable of delivering and sustaining energy savings over the long-term.

IV. Working Agreement

The Parties agree to share their specific expertise regarding the delivery of a consolidated catalog of tools and technologies, a menu of options for future direction in energy management, and a website portal for access to the right tool and service. To facilitate this collaboration, the Parties agree to share success stories, lessons learned, and other relevant best energy management practices and best-available technology information (excluding confidential business information). The Parties agree to jointly and separately promote their participation in this initiative, to coordinate messaging and to participate in publicity events.

NAM, through its membership, has access to a large number of U.S. manufacturers, having the means to both communicate to, and market the availability of energy efficiency resources.

NAM will:

- Promote to all NAM members the DOE ITP Save Energy Now energy savings assessment tool to assess opportunities in manufacturing facilities.
- Provide available information to DOE for DOE's use in evaluating the environmental performance of this initiative.

- Support DOE's implementation of section 106 of the Energy Policy Act of 2005 (Pub. L. 109-58), authorizing technical assistance to manufacturing companies and plants which commit to improving their energy intensity by more than 2.5% annually.
- Develop a simple "quick start" website/portal so that manufacturing plants can easily access tools and resources that will provide assistance to initiate and implement an energy management program.

DOE has a host of tools, expertise and services oriented towards energy technologies and practices. DOE will:

- Facilitate access to a suite of effective energy management technologies, guidance and best practices tools.
- Provide coordinated technical assistance program improvements.
- Train NAM member company personnel in conducting energy savings assessments and in using proven tools to identify energy efficiency opportunities.
- Deploy the Save Energy Now energy savings assessment experts to assess opportunities in manufacturing facilities.
- Assist NAM in establishing a "quick start" website/portal for manufacturing plants.

NAM and DOE will work together to:

- Support NAM members who are voluntarily involved in efforts to develop an industry voluntary certification process on manufacturing plant energy management in coordination with the American National Standards Institute (ANSI), the jointly held DOE-EPA Energy Star® program, NIST Manufacturing Extension Partnership and other partners.
- Support the implementation of energy savings assessment recommendations by highlighting and promoting success stories, fostering replication of energy savings across facilities under the same corporate ownership, and raising awareness to NAM member companies of all external resources available to manufacturers that would assist in the implementation of energy efficient technology and best practices, including, but not limited to:
 - a. state and utility energy efficiency incentive and rebate programs,
 - b. state grant programs for energy efficient technology demonstrations, and
 - c. private sector energy efficiency vendors and service providers, including energy service companies (ESCOs) which can provide third party financing for energy efficiency investments.

V. General

- (A) This MOU is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.
- (B) NAM agrees that the activities it undertakes herein are not intended to provide services to the federal government and that it will not seek compensation from the DOE in connection with its participation hereunder.

- (C) NAM agrees that it will not claim or imply that DOE endorses the sale and purchase of NAM's products and services or those of its member companies.
- (D) This MOU will be in effect for a period of two years and can be renewed by written agreement of both parties. It can be terminated by either Party at any time by providing notice in writing to the other Party.
- (E) This MOU in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations or individuals.
- (F) This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.
- (G) All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations and other legal requirements.
- (H) The NAM will not undertake any effort that could result in NAM being considered a federal contractor.

VI. Points of Contact

ITP:
Douglas Kaempf
U.S. Department of Energy
Office Energy Efficiency and Renewable
Energy
Industrial Technologies Program
1000 Independence Ave., S.W.
Washington, DC 20585
(202) 586-5264
Email: doug.kaempf@ee.doe.gov

NAM:
Keith McCoy
National Association of Manufacturers
1331 Pennsylvania Avenue, N.W.
Ste. 600
Washington, DC 20004-1790
(202) 637-3155
Email: kmccoy@nam.org

U.S. DEPARTMENT OF ENERGY

THE NATIONAL ASSOCIATION OF
MANUFACTURERS

By Samuel W. Bodeman By John Engle
Name: _____ Name: _____
Title: _____ Title: _____

**Department of Energy**

Washington, DC 20585

FEB 25 2008

MEMORANDUM FOR

SAMUEL W. BODMAN
SECRETARY OF ENERGY

FROM:

JEFF T.H. PON
CHIEF HUMAN CAPITAL OFFICER
OFFICE OF HUMAN CAPITAL MANAGEMENT

SUBJECT:

ACTION: Approval of one year Non-Reimbursable Detail for Michael Mills from the Department of Energy, Office of Energy Efficiency and Renewable Energy to the Executive Office of the President, Council on Environmental Quality.

ISSUE:

At the request of Chairman James Connaughton and with the concurrence of the Department, Mr. Mills will be detailed for one year. Mr. Mills will provide professional staff support to the Executive of the President Council on Environmental Quality in the areas of climate and energy technology.

The impact on budget is negligible.

SENSITIVITIES:

None

POLICY IMPACT:

None

RECOMMENDATION:

That you approve this one year, non-reimbursable detail for Mr. Mills from the Department of Energy, Office of Energy Efficiency and Renewable energy.

APPROVE:

DISAPPROVE:

DATE:

3/4/08



Printed with soy ink on recycled paper

**NON-REIMBURSABLE INTERAGENCY AGREEMENT
BETWEEN
THE U.S. DEPARTMENT OF ENERGY
AND
EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY**

I. GENERAL

The Executive Office of the President, Council on Environmental Quality (CEQ) hereby enters into an agreement for the detail of Mr. Michael Mills, an employee of the U.S. Department of Energy (DOE), from the DOE Office of Energy Efficiency and Renewable Energy (EERE), Office of Technology Development (OTD) to CEQ. This agreement shall be made on a non-reimbursable basis and with the provisions set forth herein. This non-reimbursable detail shall be for one year effective October 29, 2007, or as soon as Mr. Mills has cleared EOP security.

The Department of Energy enters into this Agreement under the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. 7256).

II. PURPOSE, SCOPE OF WORK, AND CONTROLS OVER WORK

Mr. Mills will serve as an advisor to CEQ on issues surrounding the initiative announced by the President in May 2007 regarding the major economies process on energy security and climate change. During this period, Mr. Mills will:

- A. Assume a broad range of activities related to climate and energy technology issues:
- B. Advise on specific policy/strategy related to energy technology; and
- C. Advise on specific policy/strategy related to energy security and climate change.

Mr. Mills will perform these and other duties as assigned by and under the supervision of Dave Banks.

III. DURATION OR TERMINATION OF ASSIGNMENT

The detail provided for this agreement will run for a period of one year, to begin on or about October 29, 2007, or as mutually agreeable after that date and end October 29, 2008. This detail may be extended, following the consent of both parties for a period not to exceed three months.. The detail and this agreement may be terminated, preferably by mutual consent, with reasonable notice in writing by either party.

IV. DUTY HOURS, LEAVE ACCURAL, PAY AND BENEFITS, AND
PERFORM NCE APPRAISAL

A. Duty Hours – Mr. Hall will determine Mr. Mills work hours, subject to the rules of CEQ.

B. Leave Accumulation – Mr. Mills will continue to accrue annual and sick leave in accordance with the regulations, governing DOE employees. Requests for leave will be approved or disapproved by Mr. Hall, Chief of Staff, CEQ. Mr. Mills will be responsible for advising Ms. Geraldine Paige at DOE by telephone of any leave taken.

C. Pay and Benefits – DOE will retain Mr. Mills on its payroll and continue to provide his salary by direct deposit. Mr. Mills' coverage under Federal retirement and group health will continue during this detail. Mr. Mills' share of costs for such coverage will continue to be withheld from his salary.

D. Performance Appraisal – Mr. Hall will evaluate Mr. Mills performance against criteria established in consonance with employee and DOE at the outset of this detail. The results of that evaluation will be communicated to Mr. Mills and DOE for purpose of satisfying the DOE system of annual performance appraisals at the conclusion of the detail or upon DOE's request.

V. ADMINISTRATIVE CONTACTS

The names, addresses, and telephone numbers of contacts at CEQ, and DOE are:

A. Council on Environmental Quality:

Mr. Martin Hall
Chief of Staff
Executive Office of the President
Council on Environmental Quality
734 Jackson Place NW
Washington, DC 20503

Administrative Contract

Ms. Angela Stewart
Phone: (202) 456-5142
Fax: (202) 456-5459

B. U.S. Department of Energy:

Administrative Contact

Ms. Lynda Dancy Woodson
Energy Efficiency & Renewable Energy
1000 Independence Ave., SW
Washington, DC 20585
Phone: (202) 586-2300
Fax: (202) 586-9652

Time and Attendance

Ms. Geraldine Paige
(202) 586-3388

DOE Interagency Agreement

Ms. Theresa Heinicke
Office of Human Capital Management
Headquarters Human Resources Operations (HR-30)
1000 Independence Ave., SW
Washington, DC 20585
(202) 586-8469

VI. FINANCIAL CONSIDERATIONS

- A. CEQ will incur no costs. DOE will continue to pay for:
 - i. Mr. Mills' annual salary at the GS-343-13 grade level.
 - ii. Mr. Mills' fringe benefits, including, but not limited to, such items as the employer's share of the premiums for health insurance and contributions to the FERS Retirement System.
- B. Mr. Mills' salary and fringe benefits will be adjusted, as appropriate, during the term of this detail to reflect increases in his rate of pay and performance bonus.

VII. OTHER ADMINISTRATIVE MATTERS

- A. CEQ will provide appropriate office space with appropriate equipment and resources for use by Mr. Mills, including support to include communications access, office equipment and supplies.

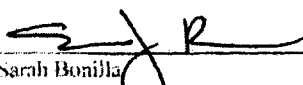
VIII. RULES, REGULATIONS, AND POLICIES

- A. Mr. Mills is subject to the Federal conflict of interest statutes, the Standards of Ethical Conduct for employees of the Executive Branch, including supplemental instructions that apply to DOE employees, and the Hatch Act limitations on political activities, as well as applicable State and Local statutory and regulatory provisions.
- B. Mr. Mills will file an annual confidential public financial disclosure report (OGE 450) with CEQ, with a copy.
- C. The Federal Tort claims statutes and any other Federal Tort Liability statutes shall apply.
- D. The rules and policies that govern internal operations and management of CEQ are applicable.
- E. Travel, transportation, and related allowances will be authorized in accordance with the Federal Travel Regulations.

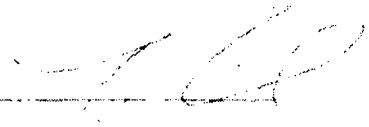
AUTHORIZATION OF INTERAGENCY AGREEMENT

Rita L. Wells
Deputy Assistant Secretary for Business Administration
Office of Energy Efficiency and Renewable Energy
Department of Energy

Date


Sarah Bonilla
Director, Office of Human Capital Management
Department of Energy

2-12-08
Date


Martin Hall
Chief of Staff
Council on Environmental Quality
Executive Office of the President


Date

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF DEFENSE
AND
THE DEPARTMENT OF ENERGY
REGARDING REIMBURSABLE DETAILS OF PERSONNEL**

**ARTICLE I
PARTIES AND PURPOSE**

1. This Memorandum of Understanding (MOU) between the Department of Defense (DoD) and the Department of Energy (DOE) sets forth the terms and conditions under which the DOE (the detailing Agency) may detail personnel on a reimbursable basis to the U.S. Africa Command (USAFRICOM).
2. This MOU is supported by the following legal authorities and agency regulations: the Economy Act of 1932, Title 31 U.S. Code §1535, as amended; DoD Instruction 4000.19, "Interservice and Intragovernmental Support;" section 646 of the Department of Energy Organization Act, Pub. L. No. 95-91, as amended; and 42 U.S.C. § 7256.

**ARTICLE II
BACKGROUND AND OBJECTIVES**

1. The President directed the Department of Defense (DoD) to establish USAFRICOM to strengthen U.S. security cooperation with Africa and to create new opportunities to bolster the capabilities of our partners in Africa. USAFRICOM will enhance our efforts to bring peace and security to the people of Africa. USAFRICOM assumes responsibility for DoD activities in Africa from the three Combatant Commands that previously held such responsibility.
2. DOE and DoD agree that DOE employees detailed to USAFRICOM can provide specialized expertise and unique technical knowledge, and make essential contributions to facilitate USAFRICOM mission accomplishment.

**ARTICLE III
SPECIFIC RESPONSIBILITIES**

1. DOE will:
 - a. Detail qualified personnel to the positions identified within USAFRICOM, as mutually agreed by DOE and DoD. The detail period will normally be no longer than three years, subject to availability of funding in each fiscal year. The Parties recognize that it may be necessary to adjust the detail period to conform to DOE's assignment policies. The Departments of Energy and Defense, may, by mutual consent, extend the detail for additional one-year periods for a maximum tour length not to exceed five years, subject to availability of funding.

b. Provide appropriate access to all necessary administrative and support elements and offices of DOE for detailees. If required, DOE will provide all necessary equipment specific or unique to DOE's mission to ensure such connectivity to USAFRICOM for installation, and will coordinate with USAFRICOM to ensure such equipment is compatible with USAFRICOM equipment.

c. Pay the detailees' salaries (including premium pay, if authorized), relocation costs, applicable allowances and differentials, and funded fringe benefits authorized under statutes and regulations of DOE.

d. Provide to USAFRICOM a memorandum detailing all estimated costs associated with the detailee and a breakdown of such costs, upon the selection of the detailee.

e. Ensure that each detailee has current security clearances (or the ability to obtain one prior to the detail), access commensurate with the duties to be performed for USAFRICOM, and current training on the appropriate handling and dissemination of classified and sensitive information.

f. Provide funding for all DOE-specific missions and training that may be performed by the detailee during the period of the detail upon mutual agreement of DOE and Commander, USAFRICOM, or their designees.

2. DoD will:

a. Provide to DOE a position description for each detailee position. Each position description will include, at a minimum, the job title; significant duties, including any supervisory or management duties; required security clearance; the detailee's supervisory chain; and duty location.

b. Confirm in writing to DOE either the selection or acceptance of each detailee.

c. Provide detailees with office space and related equipment and support (e.g., computers, web access, email accounts, telephone and facsimile services), transportation, supplies, and administrative and logistical support on the same basis as provided to DoD military personnel and civilian employees of equivalent pay grades and responsibilities assigned to USAFRICOM.

d. Provide security support and exercise force protection responsibilities over detailees in accordance with 10 U.S.C. 164, 22 U.S.C. 4802, and the Memorandum of Agreement between Commander, U.S. European Command and Chief of Mission, American Embassy Berlin, promulgated pursuant to the 1997 Department of State-Department of Defense MOU on Security of DoD Elements and Personnel in Foreign Countries.

e. Provide to detailees housing referral services or access to government housing on a space-available, reimbursable basis, in accordance with 5 U.S.C. 5912 (subject to the restrictions contained in 5 U.S.C. 5536), as implemented in DoD Housing Management Manual, DoD

4165.63-M. Assignment priorities will also be in accordance with guidelines set forth in DoD 4165.63-M.

f. Provide medical care, in military medical treatment facilities, to detailees and their eligible dependents on a space-available, reimbursable basis, consistent with DoD Instruction 1000.13, under which detailees will be expected to maintain health insurance coverage through the Federal Employees Health Benefit Program or another appropriate plan.

g. Provide eligible school-age dependents of detailees with access to educational services at DoD Dependents Schools on a space-available, reimbursable basis, in accordance with 20 U.S.C. 932, 923, as implemented in DoD Education Activity Regulation 1342.13.

h. Reimburse DOE each year for the salary, relocation costs, applicable allowances or differentials, and funded fringe benefits of each detailee, based on the information provided in the Interagency Reimbursable Agreement.

i. Provide funding and associated costs for each detailee's USAFRICOM-specific activities (e.g., USAFRICOM-related travel) and training.

j. Consider detailees, who are U.S. government civilian employees, as members of the civilian component of the United States' forces within the meaning of the NATO SOFA and the German Supplemental Agreement. As such, detailees and their eligible dependents will thus be eligible for the same privileges, exemptions, and immunities as DoD civilian employees and their dependents.

k. Provide performance evaluations [or applicable input to the evaluations] for detailees in accordance with the DOE's applicable policies and regulations. The applicable authorities are: 5 U.S.C. § 4302; 5 C.F.R. § 430.204; and Employee Performance Management System, DOE O 331.1B Chg 1, June 27, 2001. DOE detailees will be rated [or input provided] by the USAFRICOM first line supervisor. All rating evaluations will be provided to DOE.

l. Make available to detailees and their eligible dependents command-sponsored services and amenities, including commissary, morale, welfare and recreation, and exchange privileges, in accordance with DoD Instruction 1000.13, and other applicable regulations.

ARTICLE IV AMENDMENTS

This MOU may be amended in writing as mutually agreed. This MOU is subject to revision upon relocation of the USAFRICOM Headquarters to Africa.

ARTICLE V RESOLUTION OF DISAGREEMENTS

1. Nothing in this MOU is intended to conflict with applicable statutes, regulations, or policies of DoD, USAFRICOM, or DOE. If any terms or conditions of this MOU are determined to be

inconsistent with such regulations or policies, then those terms or conditions will be deemed invalid, but the remaining terms and conditions will remain in effect.

2. This MOU is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party. This MOU shall not be construed to provide a private right of action or cause of action for or by any person or entity.

3. Any disagreement on the interpretation of this MOU that cannot be resolved at the operating level may be referred to higher authorities for resolution.

ARTICLE VI FUNDING AND ADMINISTRATIVE ARRANGEMENTS

1. This MOU does not result in the transfer of funds or other financial obligations between the Parties. Nothing in this MOU authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value. Further, no provision of this MOU will be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. 1341.

2. Subsequent funding agreements will provide for reimbursement under the authority of the Economy Act of 1932, Title 31 U.S. Code §1535. These agreements will set forth the procedure and timing for the reimbursement.

3. This MOU in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations, or individuals.

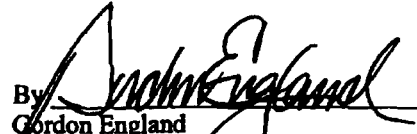
ARTICLE VII DATE OF EFFECTIVENESS, REVIEW, AND TERMINATION

1. This MOU will become effective immediately upon final signature.

2. This MOU may be terminated by mutual written agreement, or upon 90 days written notice of termination provided by one signatory to the other. A final accounting of all amounts owed or property provided will be made, regardless of the date of termination.

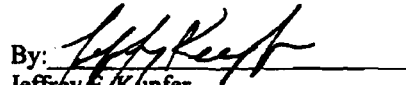
3. The signatories agree to review this MOU annually, or sooner if mutually agreed.

DEPARTMENT OF DEFENSE

By: 
Gordon England
Deputy Secretary of Defense

7-25-08
(date)

DEPARTMENT OF ENERGY

By: 
Jeffrey F. Kupfer
Acting Deputy Secretary of Energy

9/4/08
(date)